CITY OF RANCHO CORDOVA

CITY COUNCIL MEETING
Monday, November 21, 2022

5:30 PM – Regular Meeting
David B. Roberts Council Chambers

City Hall
2729 Prospect Park Drive, Rancho Cordova

Pursuant to California Assembly Bill 361 amending the Ralph M. Brown Act (Govt. Code 54950-54963), the City has declared a state of emergency relating to COVID-19 and imposed measures to promote social distancing.

Join the Meeting Via Zoom Link:
https://cityofranchocordova.zoom.us/j/82196055485?pwd=aUErRDU4cEhsMFJaVU85S3d0Ynh2QT09

Join the Meeting via the Zoom Phone Number
Zoom Phone Number: +1 669 900 6833, +1 253 215 8782, 888 475 4499 (Toll Free)
Webinar ID: 821 9605 5485
Password: 578969

Instructions to Make Public Comment

Submitting Public Comment via Email

Members of the public who wish to provide public comment via email will need to submit written comments to CityClerk@cityofranchocordova.org no later than 3:00 p.m. on Monday, November 21, 2022. Written comments received no later than 3:00 p.m. will be distributed to the Council, filed in the record, and will not be read aloud. All comments submitted later than 3:00 p.m. will be distributed to the Council.

Listening to a Zoom Meeting by Zoom Video Conference

To make a public comment using the Zoom platform, please use the “raise hand” feature at the bottom center of the screen. Please make sure to enable audio controls once access has been given by the City Clerk’s office to speak. Please wait to be called upon by the City Clerk.

Listening to a Zoom Meeting by Phone Only

You can join a Zoom meeting via teleconferencing/audio conferencing using a cell phone or traditional landline phone. To request to make a public comment by phone press *9 to raise your hand. Please wait to be called upon by the City Clerk.

All public comments will be limited to three-minutes.

If you have questions related to the City Council Meeting or the use of Zoom, please contact the City Clerk's Office at (916) 851-8720 before Monday, November 21, 2022, at 3:00 p.m.

AGENDA

1. REGULAR MEETING - CALL TO ORDER/ROLL CALL

Council Members Linda Budge, Garrett Gatewood, Siri Pulipati, David Sander, and Mayor Donald Terry

2. METRO CABLE TV TELEVISION ANNOUNCEMENT

The Clerk will announce the meetings video recording and playback schedule.

3. PLEDGE OF ALLEGIANCE

The Mayor will call on someone in attendance to lead the Pledge.

4. INVOCATION

Isabella-Marie Eulie with St. John Vianney School will give the invocation.

5. PRESENTATIONS

5.1. Presentation of Proclamation to Helen Klein on the Occasion of Her 100th Birthday.

5.2 Recognition of Senator Jim Nielsen on his Retirement.

5.2. Celebration of Council Member Sander's Birthday November 25, 2022.

6. PUBLIC COMMENT

Citizens wishing to address the Council for any matter not on the agenda may do so at this time via teleconference or by completing and submitting a Speaker Card to the City Clerk.

If you want to make a public comment via teleconference, please use the "raise hand" feature at the bottom center of the screen. If you are participating by telephone and you want to make a public comment, please press *9 to raise your hand. For those participating by Zoom or telephone, please wait to be called upon by the City Clerk.

For items on the agenda, speakers will be called by the Mayor at the point on the agenda when the item will be heard. Speakers are encouraged to keep comments to three minutes or less and to state name and community of residence.

Under the provisions of the California Government Code, the City Council is prohibited from discussing or taking immediate action on any item not on the agenda unless it can be demonstrated to be of an emergency nature or the need to take immediate action arose after the posting of the agenda.

7. COUNCIL REPORTS

8. CITY MANAGER'S REPORT

9. CONSENT CALENDAR ITEMS - ROLL CALL VOTE

9.1. **Subject:** Meeting Minutes from the Regular City Council Meeting of November 7, 2022.
Recommendation: Adopt the Minutes.

9.2. **Subject:** A Resolution Approving the Final Map of Grantline 220 Unit 1, Subdivision No. FM-2021-004-01, and Authorizing the City Manager to Execute Subdivision Improvement Agreement 2022-226 with Lennar Homes of California, LLC.
Recommendation: Adopt the Resolution.

9.3. **Subject:** A Resolution Approving the Final Map of Grantline 220 Unit 2, Subdivision No. FM-2021-004-02, and Authorizing the City Manager to Execute the Subdivision Improvement Agreement 2022-227 with Lennar Homes of California, LLC.
Recommendation: Adopt the Resolution.

9.4. **Subject:** A Resolution Approving the Final Map of Grantline 220 Unit 3, Subdivision No. FM-2021-004-03, and Authorizing the City Manager to Execute the Subdivision Improvement Agreement 2022-228 with Lennar Homes of California, LLC.
Recommendation: Adopt the Resolution.

9.5. **Subject:** A Resolution Approving the Final Map of Grantline 220 Unit 4, Subdivision No. FM-2021-004-04, and Authorizing the City Manager to Execute the Subdivision Improvement Agreement 2022-229 with Lennar Homes of California, LLC.
Recommendation: Adopt the Resolution.

9.6. **Subject:** A Resolution Appointing Authorized Agents on Behalf of the City of Rancho Cordova to Execute the Monier Circle Detention Basin Grant- FEMA's obligation for Hazard Mitigation Project DR4558-PJ0632 (City of Rancho Cordova Stormwater Detention Basin) and Hazard Mitigation Project DR4558-PJ0629 (City of Rancho Cordova Pump Station Generators).
Recommendation: Adopt the Resolution.

9.7. **Subject:** A Resolution Approving the Biennial Review and Update to the Conflict of Interest Code for the City of Rancho Cordova Pursuant to the Political Reform Act.
Recommendation: Adopt the Resolution.

9.8. **Subject:** A Resolution Authorizing the City Manager to Execute Construction Contract Amendment No. 2021-256-7 with Z Squared Inc. to Increase the Contract Amount from $5,745,297 to an Amount not to Exceed $5,890,443 for the Construction of the Rancho Cordova Youth Center Project.
Recommendation: Adopt the Resolution

9.9. **Subject:** A Resolution Authorizing the City Manager to Execute Contract No. 2022-245 in an

Amount not to Exceed $500,000 with MCE Corporation for Stormwater Pump Station Operations and Maintenance Services.
Recommendation: Adopt the Resolution.

10. CONSENT PUBLIC HEARING ITEMS - ROLL CALL VOTE

10.1. **Subject:** Suncreek Fee Program Ordinance Amendment and Approval of Template Credit/Reimbursement Agreements.
Recommendation: Waive the first reading and introduce the Ordinance and adopt the Resolution.

10.2. **Subject:** A Resolution to Approve The Ranch Four Seasons Special Planning Area Amendment and Major Design Review - Project No. PLND-0722-0045.
Recommendation: Per the Applicant's request the proposed project has been continued to December 19, 2022.

10.3. **Subject:** A Resolution Declaring a Protest Hearing and Authorizing the Mailing of Property Owner Ballot Relating to the Imposition of the Annual Stormwater Utility Fee for the Sun Center Drive Warehouse Project.
Recommendation: Adopt the Resolution.

11. PUBLIC HEARING ITEMS

11.1. **Subject:** The Residences at Capital Center - Major Design Review - Project No. PLND-1221-0024 - Located at the Northeast Corner of International Boulevard and Kilgore Road: APN: 072-0680-065 & -068, 072-0260-051, -053, -054 & -056.
Recommendation: That Council find the Initial Study-Mitigated Negative Declaration with mitigation measures that was prepared and circulated pursuant to the California Environmental Quality Act (CEQA) for the project to be adequate; and adopt the Resolution for Tentative Parcel Map, Tentative Subdivision Map, Major Design Review, and Unified Sign Program.

12. REGULAR CALENDAR ITEMS

12.1. **Subject:** Update and Direction on Workforce Recovery Program Notice of Funding Availability Proposals Received.
Recommendation: Receive update on the proposals received from the Workforce Recovery Program Notice of Funding Availability (NOFA), and funding recommendations for Council consideration. Adopt a resolution for workforce metrics tracking.

12.2. **Subject:** Residential Waste Collection and Street Sweeping Contract Options for the Term Beginning January 1, 2025.
Recommendation: Receive the presentation on the process to develop and execute a new residential waste collection and street sweeping contract for the term beginning on January 1, 2025. No action is requested at this time.

13. COUNCIL REQUESTS FOR FUTURE AGENDA ITEMS

14. ADJOURN TO CLOSED SESSION

Mayor Terry will adjourn the meeting to closed session.

15. CLOSED SESSION - CALL TO ORDER/ROLL CALL

Council Members Linda Budge, Garrett Gatewood, Siri Pulipati, David Sander, and Mayor Donald Terry

16. CLOSED SESSION

Council will discuss the following items in closed session:

1. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION (pursuant to California Government Code Section 54956.9(d)(1)) Williams v. City of Rancho Cordova, Sacramento Superior Court Case No. 34-2020-00285207.

2. PUBLIC EMPLOYEE APPOINTMENT Title: City Manager Pursuant to Government Code Section 54957.

17. OPEN SESSION - REPORT FROM CLOSED SESSION

The City Attorney will report on action taken in closed session.

18. ADJOURNMENT

ADDITIONAL INFORMATION

Special Meetings listed below are subject to change/cancellation without further notice.

Unless the Council adopts a motion to extend the meeting, any item that is not initiated before 11:00 p.m. will be continued to the next day at 5:30 p.m. or scheduled on the next regular meeting agenda of the Council.

Public documents related to items on the open session portion of this agenda, which are distributed to the City Council less than 72 hours prior to the meeting, shall be available for public inspection at the time the documents are distributed to the Council. Documents are available for inspection at the City Clerk's office located in Rancho Cordova City Hall.

The agenda items are accessible on the City's website at www.cityofranchocordova.org on Thursdays or Fridays prior to the Regular City Council Meeting.

UPCOMING MEETINGS

November 29, 2022	5:30 PM Special Meeting/Work Session
December 5, 2022	4:00 PM Special Meeting/Regular Meeting
December 13, 2022	5:30 PM Special Meeting/Work Session
December 19, 2022	5:30 PM Regular Meeting

If you have any technical questions related to the agenda items, please contact City Hall at (916) 851-8700.

The Rancho Cordova City Council meeting will be videotaped in its entirety and will be cablecast without interruption on Metro Cable 14, the Government Affairs Channel on the Comcast, Consolidated Communications and AT&T U-Verse Systems. Closed Captioning will be available on the playback cablecast. A DVD copy is available from the City Clerk's Department and a webcast of this meeting will be available for viewing via video streaming from the City's website within 48 hours of adjournment of this meeting.

In compliance with the Americans with Disabilities Act, if you need a disability-related modification or accommodation, including auxiliary aids or services, to participate in this meeting, please contact the City Clerk's Office at (916) 851-8720 at least 48 hours prior to the meeting.

CERTIFICATION OF POSTING OF AGENDA

I, Stacy Leitner, City Clerk for the City of Rancho Cordova, declare that the foregoing agenda for the November 21, 2022 Regular Meeting of the Rancho Cordova City Council was posted and available for review on November 17, 2022 at City Hall of the City of Rancho Cordova, 2729 Prospect Park Drive, Rancho Cordova, California, 95670. The agenda is also available on the city website at www.cityofranchocordova.org.

Signed November 17, 2022 at Rancho Cordova, California.

Stacy Leitner

Stacy Leitner, CMC
City Clerk

CITY OF RANCHO CORDOVA

CITY COUNCIL MEETING
Monday, November 7, 2022

5:30 PM – Regular Meeting
David B. Roberts Council Chambers

City Hall
2729 Prospect Park Drive, Rancho Cordova

Pursuant to California Assembly Bill 361 amending the Ralph M. Brown Act (Govt. Code 54950-54963), the City has declared a state of emergency relating to COVID-19 and imposed measures to promote social distancing.

DRAFT MINUTES

1. REGULAR MEETING - CALL TO ORDER/ROLL CALL

Mayor Terry called the Regular meeting to order in the David B. Roberts Council Chambers at 5:32 p.m.

Council Members Present: Linda Budge, Garrett Gatewood, Siri Pulipati (arrived at 6:00 p.m.),David Sander, and Mayor Donald Terry

Council Members Absent: None

Staff Members Present: Cyrus Abhar, Adam Lindgren, Stacy Leitner and Persephonie Riley

2. METRO CABLE TV TELEVISION ANNOUNCEMENT

The City Clerk read the meetings recordings and playback schedule.

3. PLEDGE OF ALLEGIANCE

Council Member Garrett Gatewood led the pledge.

4. INVOCATION

Isabella Marie Eulie with St. John Vianney School gave the invocation.

5. PRESENTATIONS

5.1. Introduction of New Employees Krystina Baudrey, Planning Technician I by Arlene Granadosin-Jones, Senior Planner and Amber Carter, Code Enforcement Officer I by Russ Ducharme, Neighborhood Services Manager.

6. PUBLIC COMMENT

Mayor Terry opened the public comment period. The following individuals addressed the Council or submitted public comment via email:

1. Marilyn Metzger
2. James Garcia
3. Helen Whelan-Bashaw
4. Michele Forrest
5. Kate Carroll

Mayor Terry closed the public comment period.

7. COUNCIL REPORTS

Council reported on events since the last meeting.

8. CITY MANAGER'S REPORT

City Manager Cyrus Abhar gave his report.

9. CONSENT CALENDAR ITEMS - ROLL CALL VOTE

Mayor Terry opened the public comment period. Seeing no speakers. Mayor Terry closed the public comment period.

ACTION: Motion to approve item 9.1 through 9.6 by Budge second by Pulipati; Motion passed with a 5:0 vote.

9.1. **Subject:** Meeting Minutes from the Regular City Council Meeting of October 17, 2022.
Recommendation: Adopt the Minutes.

9.2. **Subject:** An Ordinance of the City of Rancho Cordova Amending Section 5.50 of the City of Rancho Cordova Municipal Code Relating to the Sacramento Metropolitan Cable Television Commission.
Recommendation: Waive second reading and adopt the Ordinance.

9.3. **Subject:** A Resolution of the City Council of the City of Rancho Cordova and on Behalf of Commissions and Committees Created by the City Council Pursuant to Government Code Section 54952(b) Confirming the State of Emergency Under Government Code Section 8625, Recognizing Continued Measures to Promote Social Distancing, and Re-authorizing Remote Teleconference Meetings of the City for the Period from November 7, 2022 through December 6, 2022.
Recommendation: Adopt the Resolution.

9.4. **Subject:** A Resolution Authorizing the City Manager to Grant Non-Exclusive Franchises and Execute Agreements with Multiple Waste Hauling Companies for the Collection of Solid Waste, Recyclables and Organic Materials from Businesses and Multi-Family Properties.
Recommendation: Adopt the Resolution.

9.5. **Subject:** A Resolution Declaring the City's intention to Impose an Annual Stormwater Utility Fee For the Maintenance of Storm Drainage and Flood Protection Systems for the Sun Center Drive Warehouse Project.

Recommendation: Adopt the Resolution designating a time and place for hearing protests in connection with the annual Stormwater Utility Fee for the Sun Center Drive Warehouse project.

9.6. **Subject:** A Resolution Declaring the Results of the Mail Ballot Election for Rancho Cordova Transit-Related Services Special Tax Area Zone 31 for a portion of The Ranch Project.

Recommendation: Adopt the Resolution.

10. CONSENT PUBLIC HEARING ITEMS - ROLL CALL VOTE

Mayor Terry stated that item 10.1 would be pulled for separate discussion.

Mayor Terry opened the public comment period. Seeing no speakers. Mayor Terry closed the public comment period.

ACTION: Motion to approve item 10.2 and 10.3 by Budge second by Sander; Motion passed with a 5:0 vote.

10.1. **Subject:** Montelena Village 3 Subdivision – Major Design Review Amendment – PLND-0922-0053.

Recommendation: That Council find the project is exempt under CEQA Exemption 15182, Residential Projects Pursuant to a Specific Plan. The project was analyzed as part of the Sunridge Specific Plan (SDSP) Environmental Impact Report (EIR); and adopt the Resolution for the Montelena Village 3 Major Design Review Amendment.

Mayor Terry opened the public comment period. The following individuals addressed the Council or submitted public comment via email:

1. James Garcia
2. Paul Carroll

Mayor Terry closed the public comment period.

ACTION: Motion to approve item 10.1. by Budge second by Pulipati; Motion passed with a 5:0 vote.

10.2. **Subject:** A Resolution Approving the Community Development Block Grant 2023 Annual Action Plan.

Recommendation: Adopt the Resolution of the City Council of the City of Rancho Cordova the submit the 2023 Community Development Block Grant (CDBG) Annual Action Plan (AAP).

10.3. **Subject:** Second Reading of Ordinances Repealing and Replacing Various Chapters of Title 16 "Buildings and Construction", by Adopting by Reference State Building Codes and Making Local Amendments to Portions Thereof, and Adopting Other Related Codes.

Recommendation: Waive the second reading and adopt the Ordinances.

11. PUBLIC HEARING ITEMS

None.

12. REGULAR CALENDAR ITEMS

12.1. **Subject:** Planning Project Processing and Procedures.
Recommendation: Receive information on the overall key steps to processing planning entitlements, including when in the process specific questions can be addressed.

Mayor Terry opened the public comment period. The following individuals addressed the Council or submitted public comment via email:

1. James Garcia

Mayor Terry closed the public comment period.

ACTION: Input was received regarding Planning Project Processing and Procedures.

12.2. **Subject:** Community Engagement Division Annual Update.
Recommendation: Provide Community Engagement Division update and answer Council questions.

Mayor Terry opened the public comment period. Seeing no speakers. Mayor Terry closed the public comment period.

ACTION: Input was received regarding the Community Engagement Division Annual Update.

13. COUNCIL REQUESTS FOR FUTURE AGENDA ITEMS

None.

14. ADJOURN TO CLOSED SESSION

Mayor Terry adjourned the meeting to closed session at 8:23 p.m.

15. CLOSED SESSION - CALL TO ORDER/ROLL CALL

Mayor Terry called closed session to order at 8:23 p.m.

Council Members Present: Linda Budge, Garrett Gatewood, Siri Pulipati, David Sander, and Mayor Donald Terry

Council Members Absent: None

Staff Members Present: Adam Lindgren

16. CLOSED SESSION

Council met in closed session to discuss the following items:

1. CONFERENCE WITH REAL PROPERTY NEGOTIATORS: Pursuant to Government Code Section 54956.8: Property 2300 Mine Shaft Lane, Assessor's Parcel Number (APN): 072-0231-014-0000, City Negotiators: Cyrus Abhar, City Manager, Albert Stricker, Public Works Director, and Adam U. Lindgren, City Attorney, Negotiating Parties: Cordova Community Council. Under Negotiation: Price and Terms of Payment.

2. PUBLIC EMPLOYEE APPOINTMENT Title: City Manager Pursuant to Government Code Section 54957.

17. OPEN SESSION - REPORT FROM CLOSED SESSION

City Attorney Adam Lindgren reported that staff was given direction and no reportable action was taken in closed session.

18. ADJOURNMENT

Mayor Terry adjourned the meeting in memory of Connie Mahoney, Doreen Mauk, and Colonel Bob Burns at 9:43 p.m..

_____
Stacy Leitner, CMC
City Clerk

MEMORANDUM

ITEM 9.2.

DATE: November 21, 2022

TO: Honorable Mayor and Council Members

FROM: Albert Stricker, Public Works Director
Quoc Nham, Senior Civil Engineer

SUBJECT: **A RESOLUTION APPROVING THE FINAL MAP OF GRANTLINE 220 UNIT 1, SUBDIVISION NO. FM-2021-004-01, AND AUTHORIZING THE CITY MANAGER TO EXECUTE SUBDIVISION IMPROVEMENT AGREEMENT 2022-226 WITH LENNAR HOMES OF CALIFORNIA, LLC**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would approve the Final Map of Grantline 220 Unit 1 Subdivision No. FM-2021-004-01 and Authorize the City Manager to Execute Subdivision Improvement Agreement 2022-226 with Lennar Homes of California, LLC.

BACKGROUND

The map has been examined and checked for compliance with Title 22 of the City of Rancho Cordova Municipal Code and the California Subdivision Map Act. The City Council approved the Tentative Subdivision Map on June 7, 2021. A copy of the final map, Attachment 3, and a copy of the vicinity map, Attachment 4, are included with this letter. The developer has chosen a theme of bird species for neighborhood roadway names.

Roads are offered for dedication to this subdivision. Lennar Homes of California, LLC has provided a performance and labor and material bond guaranteeing the construction of the public improvements. Wood Rodgers has waived the requirement for a bond to guarantee payment for setting up the survey monuments with the subdivision. The soil report requirement has been satisfied by Wallace Kuhl & Associates dated August 4, 2021.

There are no delinquent taxes on the property and the Tax Collector has so certified. The 2022/2023 estimated taxes have been secured by the Sacramento County Tax Collector.

FISCAL IMPACT AND FUNDING SOURCE

There is no fiscal impact to the City.

ATTACHMENT(S)

1. Resolution
2. SIA Contract 2022-226
3. Final Map
4. Vicinity Map

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, APPROVING THE FINAL MAP OF GRANTLINE 220 UNIT 1 SUBDIVISION NO. FM-2021-004-01, AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE SUBDIVISION IMPROVEMENT AGREEMENT 2022-226 WITH LENNAR HOMES OF CALIFORNIA, LLC

WHEREAS, the City Council approved the Tentative Subdivision Map on June 7, 2021, per Resolution No. 91-2021; and

WHEREAS, the map is in substantial compliance with the approved tentative map; and

WHEREAS, the conditions of approval have been complied with; and

WHEREAS, the map complies with Title 22 of the City of Rancho Cordova municipal code and the California Subdivision Map Act; and

WHEREAS, the approval of final maps is exempt from review under the California Environmental Quality Act (CEQA) pursuant to CEQA Regulation Section 15268(b)(3) as a ministerial approval; and

WHEREAS, the City desires to enter into a subdivision improvement agreement with the developer to ensure necessary public improvements are completed and secured with a bond.

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does approve the Final Map of Grantline 220 Unit 1 Subdivision No. FM-2021-004-01 and does authorize the City Manager to execute Subdivision Improvement Agreement Contract No. 2022-226 with Lennar Homes of California, LLC in a form approved by the City Attorney.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 21st day of November 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

_____
Donald Terry, Mayor

_____
Stacy Leitner, CMC
City Clerk

SUBDIVISION IMPROVEMENT AGREEMENT

GRANTLINE 220 UNIT 1 FM-2021-004-01

THIS SUBDIVISION IMPROVEMENT AGREEMENT (hereinafter, “Agreement”) entered into this _____ day of _____, 20__, by and between the City of Rancho Cordova, (hereinafter “City"), a California municipal corporation, and Lennar Homes of California, LLC, a California limited liability company (hereinafter "Principal").

RECITALS

WHEREAS, Section 66462 of the Government Code provides that if the work of improvement required therein is not completed prior to the acceptance of a final subdivision map, the owner of the subdivision may enter into an agreement with the City to perform the work of improvement as required by said sections in consideration of the acceptance of said final subdivision map by the City; and

WHEREAS, Section 66499 of the Government Code requires that said agreement be secured by a surety bond or by an instrument of credit issued by a financial institution subject to regulation by the State or federal governments or by a cash deposit; and

WHEREAS, Section 66499.3 establishes the types and amount of security to guarantee the performance of any such improvement agreement; and

WHEREAS, City and Principal desire to enter into an improvement agreement as authorized by the Subdivision Map Act under the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the mutual promises, conditions and covenants hereinafter set forth, City and Principal agree as follows:

1. Incorporation of Recitals. The foregoing recitals are hereby incorporated by reference.

2. Findings and Conditions of Subdivision Map. Principal recognizes that approval of its subdivision was subject to the findings and conditions attached to such approval and hereby acknowledges and agrees to be bound by such findings and conditions.

3. City Approval of Subdivision Map. City agrees to approve the final map of the subdivision presented to it by Principal and designated Grantline 220 Unit 1, FM-2021-004-01 and to accept on behalf of the public all lands, rights of way and easements therein offered in dedication, in accordance with the conditions hereinafter set forth.

4. Completion of Improvements. In consideration of such approval, Principal agrees to complete the work of improvement required for said subdivision in accordance with the requirements of the Rancho Cordova Municipal Code and such standard specifications created by applicable City ordinances or resolutions which are in effect at the time of the installation of said improvements. The work required may lie within or outside the subdivision and must be completed within **24** months of the date of this Agreement.

5. Payment For Services. Principal further agrees to promptly pay, when due, all costs for plan checking, inspection services and material testing performed by City pursuant to the requirements of Sections 12.03.210 et. seq. of the Rancho Cordova Municipal Code.

7**. Acceptance of Improvements.** Upon satisfactory completion of all public improvements in accordance with standard specifications created by City ordinances or resolutions which are in effect at the time of the installation of said improvements, City agrees to accept for maintenance the work of improvement within the dedicated parcels shown on said final subdivision map, and any off site easements granted, subject to the provisions of paragraph 9 hereof. Acceptance will be postponed until such time the City determines a public purpose exists. Public Purpose is defined as existence of habitable structures within the subdivision.

8. Notice of Commencement of Work. Principal shall notify the City Engineer in writing of the commencement of the work of improvements.

9. Correction of Defects. Principal agrees to remedy any defects in the improvement arising from faulty or defective construction of said improvements occurring within twelve months after acceptance thereof by City.

10. Indemnity. Principal shall indemnify and hold harmless with counsel selected by the City, the City of Rancho Cordova, its agents, officers, consultants, and employees ("City") from any and all loss, damage or liability arising out of or resulting from Principal's performance or non-performance of his duties and obligations under this Agreement, or from the negligent act or omission of himself, his agents, servants and employees. Principal shall, at his own cost and expense, defend any and all actions, suits, or legal proceedings arising out of or resulting from the performance or nonperformance of this Agreement, that may be brought or instituted against the City, its officers and employees, on any such claim or demand, and pay or satisfy any judgment that may be rendered against the City in any such action, suit or legal proceedings, or result thereof, regardless whether caused in part by a party indemnified hereunder.

11. Extension of Completion Date. If the construction of the work or improvement should be delayed without fault of Principal, the time for completion thereof may be extended by City for such period of time as City may deem reasonable.

12. Improvement Security. (a) Principal shall obtain and furnish to City an improvement security consisting of a surety bond in favor of City, issued by a corporate surety authorized to do business in the State of California, and in form approved by City, securing the faithful performance by Principal of the work of improvement required, and also securing the payment of the costs and interest, if any, due under Sections 12.030.210 et seq. of the Rancho Cordova Municipal Code, as provided in Paragraph 5 herein and an additional bond issued by a corporate surety authorized to do business in the State of California, in the amount of not less than 50 percent of the total estimated cost of the improvement, securing payment to contractor, his subcontractors, and to persons renting equipment or furnishing labor or materials for the improvement.

(b) In lieu of said corporate surety bonds, Principal may furnish an improvement security consisting of a letter of credit, certificate of deposit, or similar instrument of credit, in form satisfactory to City, issued by a financial institution subject to regulation by the State or Federal government, pledging that the funds necessary to meet the performance required herein are on deposit, and guaranteed for payment on demand. Said letter of credit, certificate of deposit, or similar instrument of credit shall provide that the funds designated therein shall become trust funds for the purposes set forth in said instrument.

(c) The failure of Principal to commence the required work of improvements, or to complete the same within the time required after commencement thereof, shall entitle City to the full payment of the security, or so much thereof as may be necessary to complete the required work of improvement. The amount of the surety bond for faithful performance shall be in the sum of **$10,787,000**. The amount of the surety bond for the payment of the claims of the contractor, his subcontractors, and to persons renting equipment or furnishing labor or materials for the improvement shall be at least 50 percent of the above amount. The letter of credit, certificate of deposit or similar instrument of credit, or cash deposit for faithful performance, shall be in the above amount plus an additional 50 percent for the purposes set forth herein.

13. Improvement Security As Condition Precedent. The furnishing of the improvement security by Principal as required by paragraph 12 hereof shall be a condition precedent to acceptance by City of the above described real property and the performance by the City of the covenants herein on its part to be performed.

14. Inspection of Work In Progress. (a) Principal may request The City Engineer to inspect the work as it progresses. If the work performed is found to be in accordance with the requirements of City, it may be accepted as it progresses and a partial refund of the cash deposit, or a release pro tanto of the faithful performance bond, letter of credit, certificate of deposit or similar instrument of credit shall be made in a sum in the same ratio to the total deposit as the work accepted bears to the total work to be done. No refund in excess of 85 percent of the total amount of the improvement security for faithful performance shall be made until all the work has been completed and accepted.

(b) The determination of the Administrator of Public Works of City as to the amount of work done, and the amount of refund or partial release pro tanto, shall be final and conclusive. When the work of improvement is accepted, 10 percent of the improvement security shall be retained to guarantee faithful performance of the provisions of paragraph 9 of this Agreement.

(c) Improvement security given to secure payment to contractor, his subcontractors and to persons renting equipment or furnishing labor or materials for the work of improvement may, six months after completion and acceptance of the work, be reduced to an amount not less than the total of all claims on which an action has been filed, and notice thereof given in writing to City, and if there are no actions filed, such improvement security may be released in full.

15. Execution By Real Party In Interest. Where title to the subdivision property is held by the record owner thereof under a holding Agreement, this Agreement and the bond given pursuant thereto must be executed by the real party or parties in interest.

16. Waiver of Civil Code Section 2819. Any extension of time hereunder shall not operate to release the surety on the bond filed pursuant to this Agreement. In this connection the surety waives the provisions of Section 2819 of the Civil Code of the State of California.

17. City Construction of Improvements. In the event that all or any portion of the works of improvement contemplated herein are proposed to be constructed by street improvement proceedings under the control of City, the undertaking of such proceedings shall in no way relieve Principal of any duties under this Agreement, except where all of the works of improvement that are required under this Agreement have in fact been constructed and accepted by City.

18. Interest. Interest shall accrue at the highest rate permitted by law on all sums from the date payment is due under the terms of this Agreement and the sum due is certain or reasonably capable of being made certain.

19. Attorneys' Fees. In the event that it is necessary for the City to enforce the obligations secured by the improvement security furnished pursuant to Paragraph 12 hereof, the City shall be entitled to recover its costs and reasonable expenses and fees, including reasonable attorneys' fees, as provided for in Government Code Section 66499.4.

20. Amendments. This Agreement may be modified or amended, or any of its provisions waived, only by a subsequent written agreement executed by the parties hereto.

21. Entire Agreement. This Agreement and any attachments hereto constitute the sole, final, complete, exclusive and integrated expression and statement of the terms and conditions of this Agreement among the parties hereto concerning the subject matter addressed herein, and supercedes all prior negotiations, representations or agreements, oral or written, that may be related to the subject matter of this Agreement.

22. Construction and Interpretation. It is agreed and acknowledged by the Principal that the provisions of this Agreement have been arrived at through negotiation, and that the Principal has had a full and fair opportunity to revise the provisions of this Agreement and to have such provisions reviewed by legal counsel. Therefore, the normal rule of construction that any ambiguities are to be resolved against the drafting party shall not apply in construing or interpreting this Agreement.

23. Successors and Assigns. This Agreement shall bind and inure to the benefit of the respective successors and assigns of the parties hereto.

24. Time. Time is of the essence in the performance of each and every term of this Agreement.

SIGNATURE PAGE FOLLOWING

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first set forth above, which date shall be considered by the Parties to be the effective date of this Agreement.

CITY OF RANCHO CORDOVA,
California Municipal Corporation

_____
Cyrus Abhar, City Manager

Date: _____

LENNAR HOMES OF CALIFORNIA, LLC.,
a California limited liability company
(as successor-in-interest by conversion to Lennar Homes of California, Inc., a California corporation)

_____
Larry Gualco, Sr. Vice President

Date: _____

ATTEST:

_____
Stacy Leitner, CMC, City Clerk

OWNER'S STATEMENT

THE UNDERSIGNED HEREBY CONSENT TO THE PREPARATION AND RECORDING OF THIS FINAL MAP OF GRANTLINE 220 UNIT 1.

THE REAL PROPERTY DESCRIBED BELOW IS DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES:

THE UNDERSIGNED HEREBY OFFERS FOR DEDICATION AND DOES HEREBY DEDICATE TO ANY AND ALL PUBLIC USES, RIGHTS–OF–WAY OVER THE PUBLIC ROADS SHOWN HEREON, AND DOES HEREBY DEDICATE TO SPECIFIC PURPOSES THE FOLLOWING:

1. EASEMENTS FOR PLANTING AND MAINTAINING TREES, ELECTROLIERS, TRAFFIC CONTROL DEVICES, WATER AND GAS PIPES, AND UNDERGROUND WIRES AND CONDUITS FOR ELECTRIC, TELEVISION AND TELEPHONE SERVICES, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO, ON, OVER, UNDER AND ACROSS LOTS AA, BB, CC, M, P, T, U, V, W, X, Y AND Z, AND THOSE STRIPS OF LAND 12.50 FEET, 22.00 FEET AND 25.00 FEET IN WIDTH, LYING CONTIGUOUS TO THE PUBLIC STREETS SHOWN HEREON AND DESIGNATED "PUBLIC UTILITY EASEMENT" (PUE).

2. EASEMENTS FOR LANDSCAPING AND ALL APPURTENANCES PERTAINING THERETO LYING ON, OVER AND ACROSS LOTS AA, BB, CC, M, P, T, U, V, W, X, Y AND Z, AND THOSE STRIPS OF LAND SHOWN HEREON AND DESIGNATED "LANDSCAPING EASEMENT" (LE). SAID STRIPS TO BE KEPT OPEN AND FREE FROM BUILDINGS. THE MAINTENANCE AND REPLANTING OF THE LANDSCAPE STRIP SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.

3. RIGHTS OF WAY AND EASEMENTS FOR THE INSTALLATION AND MAINTENANCE OF A PEDESTRIAN WALKWAY, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO ON, OVER, UNDER AND ACROSS LOTS AA, BB, CC, M, P, T, U, V, W, X, Y AND Z, AND THOSE STRIPS OF LAND 22.00 FEET AND 25.00 FEET IN WIDTH SHOWN HEREON AND DESIGNATED "PEDESTRIAN EASEMENT" (PE). THE MAINTENANCE AND REPAIR OF THE WALKWAY SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.

4. AN EASEMENT FOR CONSTRUCTING AND MAINTAINING CENTRALIZED MAIL DELIVERY BOXES, PEDESTALS, AND SLABS, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO INCLUDING PEDESTRIAN ACCESS FOR DELIVERY AND RECEIPT OF MAIL ON, OVER, UNDER AND ACROSS STRIPS OF LAND FIVE FEET IN WIDTH LYING CONTIGUOUS TO THE PUBLIC STREETS SHOWN HEREON.

LENNAR HOMES OF CALIFORNIA, LLC
A CALIFORNIA LIMITED LIABILITY COMPANY
(AS SUCCESSOR-IN-INTEREST BY CONVERSION TO
LENNAR HOMES OF CALIFORNIA, INC., A CALIFORNIA CORPORATION)

BY: _____

NAME: _____

TITLE: _____

NOTARY'S ACKNOWLEDGMENT

A NOTARY PUBLIC OR OTHER OFFICER COMPLETING THIS CERTIFICATE VERIFIES ONLY THE IDENTITY OF THE INDIVIDUAL WHO SIGNED THE DOCUMENT TO WHICH THIS CERTIFICATE IS ATTACHED, AND NOT THE TRUTHFULNESS, ACCURACY, OR VALIDITY OF THAT DOCUMENT.

STATE OF CALIFORNIA)
COUNTY OF _____) SS

ON _____ DAY OF _____, 2022 BEFORE ME, _____,
A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, PERSONALLY APPEARED _____,
_____,
WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND AND OFFICIAL SEAL: _____

PRINTED NAME: _____

MY PRINCIPLE PLACE OF BUSINESS IS IN THE
COUNTY OF: _____

MY COMMISSION EXPIRES: _____

MY COMMISSION No.: _____

SURVEYOR'S STATEMENT

THIS FINAL MAP OF GRANTLINE 220 UNIT 1 WAS PREPARED BY ME OR UNDER MY DIRECTION AND IS BASED UPON A FIELD SURVEY IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AND LOCAL ORDINANCE AT THE REQUEST OF LENNAR HOMES OF CALIFORNIA, INC, IN OCTOBER, 2021. I HEREBY STATE THAT ALL THE MONUMENTS SHOWN HEREON ARE OF THE CHARACTER AND OCCUPY THE POSITIONS INDICATED OR THAT THEY WILL BE SET IN THOSE POSITIONS BEFORE NOVEMBER 30, 2024 AND THAT THE MONUMENTS ARE, OR WILL BE, SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

WOOD RODGERS, INC.

PROFESSIONAL LAND SURVEYOR · ANDREW P. TAPLEY · 9554 · STATE OF CALIFORNIA

_____
ANDREW P. TAPLEY
P.L.S. 9554

_____
DATE

CITY ENGINEER'S STATEMENT

I HEREBY STATE THAT I HAVE EXAMINED THIS FINAL MAP OF GRANTLINE 220 UNIT 1 AND FIND IT TO BE SUBSTANTIALLY THE SAME AS THE TENTATIVE MAP APPROVED BY THE CITY OF RANCHO CORDOVA, AND ANY APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF THE SUBDIVISION MAP ACT AND ALL APPLICABLE CITY ORDINANCES HAVE BEEN COMPLIED WITH.

_____
CITY ENGINEER, ALBERT STRICKER, R.C.E. 64057

DATED: _____

REGISTERED PROFESSIONAL ENGINEER · ALBERT STRICKER · No. 64057 · CIVIL · STATE OF CALIFORNIA

CITY SURVEYOR'S STATEMENT

I HEREBY STATE THAT I AM SATISFIED THAT THIS FINAL MAP OF GRANTLINE 220 UNIT 1 IS TECHNICALLY CORRECT.

_____
LAND SURVEYOR, CYRUS E. ABHAR, P.L.S. 7723

DATED: _____

LICENSED LAND SURVEYOR · CYRUS E. ABHAR · No. 7723 · STATE OF CALIFORNIA

CITY CLERK'S STATEMENT

I HEREBY STATE THAT THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA HAS APPROVED THIS FINAL MAP OF GRANTLINE 220 UNIT 1 AND HAS ACCEPTED ON BEHALF OF THE PUBLIC ALL EASEMENTS AND RIGHTS–OF–WAY SHOWN HEREON, SUBJECT TO COMPLETION OF THE IMPROVEMENTS, AND DO HEREBY CERTIFY THE ABANDONMENTS LISTED HEREON.

BY: _____
CITY CLERK
CITY OF RANCHO CORDOVA

DATED: _____

RECORDER'S STATEMENT

FILED THIS_____DAY OF _____, 2022, AT _____ ___.M. IN BOOK _____ OF MAPS, AT PAGE _____ AT THE REQUEST OF WOOD RODGERS, INC. TITLE TO THE LAND INCLUDED IN THIS FINAL MAP BEING VESTED AS PER CERTIFICATE NO. _____ ON FILE IN THIS OFFICE.

DONNA ALLRED, COUNTY RECORDER
COUNTY OF SACRAMENTO

DOCUMENT NO.: _____

BY: _____
DEPUTY RECORDER

FEE: $ _____

FINAL MAP OF

GRANTLINE 220 UNIT 1

SUBDIVISION NO. FM-2021-004-01
BEING ALL OF LOTS 1, 7, A & B OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

Sheet 1 of 8

1258.023

NOTES

1. ALL CURVES ARE DIMENSIONED WITH RADIUS, DELTA, AND ARC LENGTH.
2. ALL DISTANCES SHOWN HEREON ARE EXPRESSED IN FEET AND DECIMALS THEREOF.
3. DUE TO ROUNDING, THE SUM OF THE INDIVIDUAL DIMENSIONS MAY NOT EQUAL THE OVERALL DIMENSION.
4. TOTAL AREA FOR THIS "GRANTLINE 220 UNIT 1" FINAL MAP IS 47.77± ACRES, CONSISTING OF 1 FUTURE DEVELOPMENT LOT, 1 NEIGHBORHOOD PARK, 12 LANDSCAPE LOTS AND 130 RESIDENTIAL LOTS.
5. LOT A IS RESERVED FOR FUTURE HIGH–DENSITY RESIDENTIAL PURPOSES.
6. LOT F IS RESERVED FOR NEIGHBORHOOD PARK PURPOSES AND SHALL BE GRANTED TO THE CORDOVA RECREATION & PARKS DISTRICT (CRPD).
7. LOTS AA, BB, CC, M, P, T, U, V, W, X, Y AND Z ARE RESERVED FOR LANDSCAPE PURPOSES AND SHALL BE GRANTED TO THE CITY OF RANCHO CORDOVA.
8. A 5/8" REBAR CAPPED "LS 9554" WILL BE SET AT ALL REAR LOT CORNERS, ALONG WITH ALL LOT LINE ANGLE POINTS OR AT A 2.00 FOOT PROJECTION ALONG LOT LINES ADJACENT TO WALLS (2.00 FOOT BY 2.00 FOOT OFFSETS FOR ANGLE POINTS ADJACENT TO WALLS). FRONT CORNERS WILL BE SET WITH A 1" BRASS DISK STAMPED "LS 9554" AT A 1.00 FOOT PROJECTION OF THE PROPERTY LINE ONTO THE SIDEWALK.
9. A SOILS REPORT DATED AUGUST 4, 2021, WAS PREPARED FOR THIS SUBDIVISION BY WALLACE KUHL & ASSOCIATES. A COPY OF THIS REPORT ENTITLED "GEOTECHNICAL ENGINEERING REPORT, GRANTLINE 220, RANCHO CORDOVA, CALIFORNIA, WKA NO. 12590.03", IS AVAILABLE FOR PUBLIC INSPECTION AT THE OFFICE OF THE CITY OF RANCHO CORDOVA BUILDING INSPECTOR.
10. PURSUANT TO SECTION 66434(g) OF THE GOVERNMENT CODE, THE FOLLOWING EASEMENTS, NOT SHOWN HEREON, ARE HEREBY ABANDONED:
    - 10.1. THAT PORTION OF THE IRREVOCABLE OFFERS FOR DEDICATION OF ROAD RIGHT–OF–WAY (IOD) OFFERED TO THE CITY OF RANCHO CORDOVA ON THAT CERTAIN FINAL MAP ENTITLED "LARGE LOT FINAL MAP OF GRANTLINE 220", FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13, SACRAMENTO COUNTY RECORDS, LYING WITHIN THE BOUNDARY SHOWN HEREON.
    - 10.2. THAT PORTION OF THE PUBLIC UTILITY EASEMENTS (PUE) DEDICATED TO THE CITY OF RANCHO CORDOVA ON THAT CERTAIN FINAL MAP ENTITLED "LARGE LOT FINAL MAP OF GRANTLINE 220", FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13, SACRAMENTO COUNTY RECORDS, LYING WITHIN THE BOUNDARY SHOWN HEREON.
    - 10.3. THAT PORTION OF THE PEDESTRIAN EASEMENTS (PE) DEDICATED TO THE CITY OF RANCHO CORDOVA ON THAT CERTAIN FINAL MAP ENTITLED "LARGE LOT FINAL MAP OF GRANTLINE 220", FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13, SACRAMENTO COUNTY RECORDS, LYING WITHIN THE BOUNDARY SHOWN HEREON.

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS IDENTICAL TO THE WEST LINE OF LOTS 1 AND 2 ON THE "LARGE LOT FINAL MAP OF GRANTLINE 220" FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13, SACRAMENTO COUNTY RECORDS. BEARING OF SAID WEST LINE BEING " N00°56'18"W ". DISTANCES ARE GROUND BASED.

REFERENCES:

(1)	442 MAPS 13	LARGE LOT FINAL MAP OF GRANTLINE 220
(2)	438 BM 3	ARISTA DEL SOL PHASE 1
(3)	403 MAPS 6	LARGE LOT FINAL MAP OF GRANTLINE 208
(4)	GRANT DEED	20120312 OR 1198
(5)	348 MAPS 1	LARGE LOT MAP OF SUNRIDGE PARK PHASE II

LEGEND

○	DIMENSION POINT
⌖	FOUND SECTION CORNER AS NOTED
■	FOUND MONUMENT AS NOTED
◉	FOUND 3/4" IRON PIPE WITH CAP STAMPED "LS 9554"
⌀	FOUND 3/4" IRON PIPE WITH CAP STAMPED "LS 8067"
⌖	SECTION CORNER NOT FOUND, NOTHING SET
◎	SET 3/4" IRON PIPE WITH CAP STAMPED "LS 9554"
℄	CENTERLINE
BM	BOOK OF MAP
HDR	HIGH DENSITY RESIDENTIAL
IOD	IRREVOCABLE OFFER OF DEDICATION
L=	ARC LENGTH
LE	LANDSCAPE EASEMENT
NTS	NOT TO SCALE
(OA)	OVERALL
ORSC	OFFICIAL RECORDS OF SACRAMENTO COUNTY
PE	PEDESTRIAN EASEMENT
PUE	PUBLIC UTILITY EASEMENT
(R)	RADIAL BEARING
SF	SQUARE FEET
(6)	SHEET NUMBER REFERENCE

FINAL MAP OF

GRANTLINE 220 UNIT 1

SUBDIVISION NO. FM-2021-004-01

BEING ALL OF LOTS 1, 7, A & B OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
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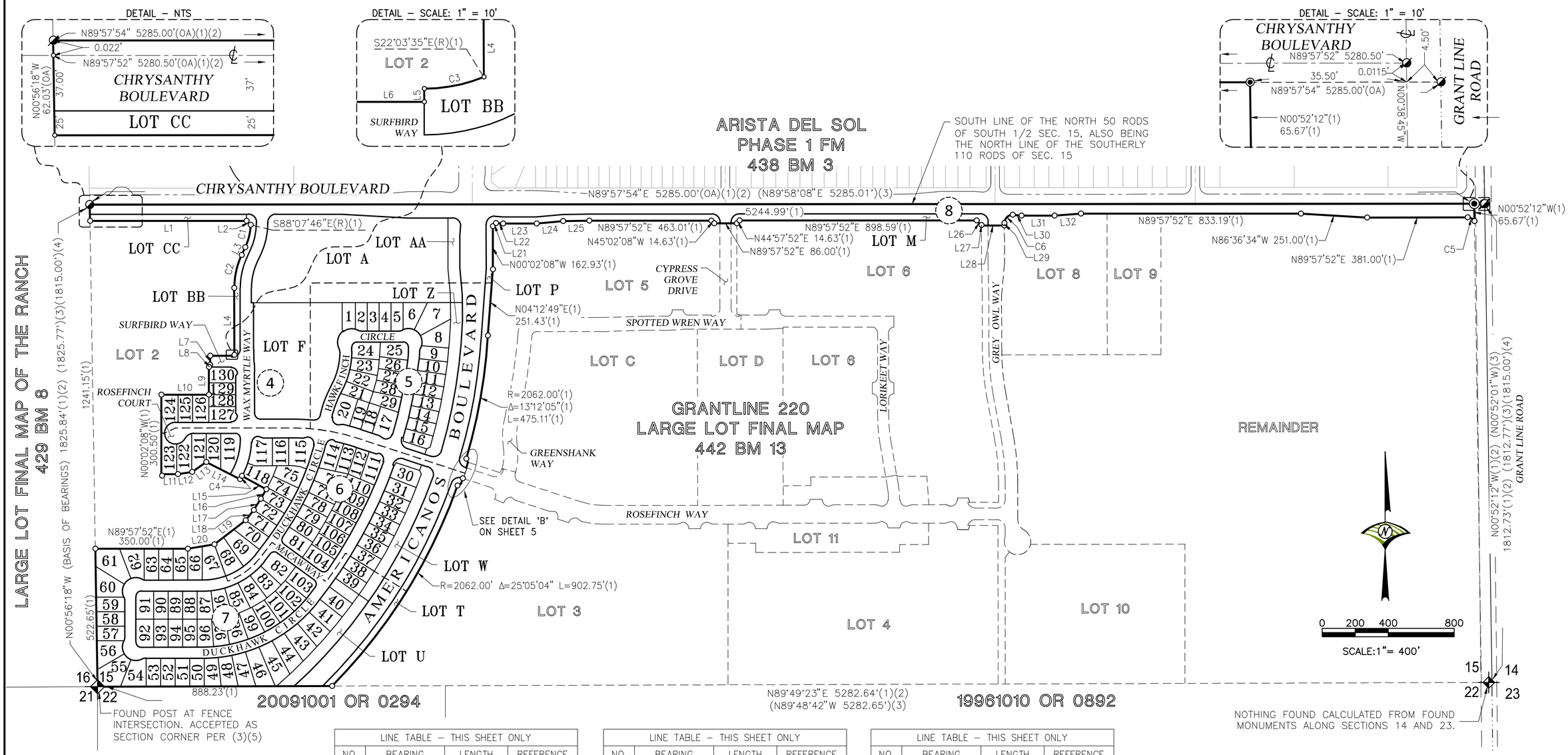
Sacramento, CA 95816 Fax 916.341.7767

BOUNDARY SHEET



CURVE TABLE – THIS SHEET ONLY				
NO.	RADIUS	DELTA	LENGTH	REFERENCE
C1	216.50'	23°12'25"	87.69'	(1)
C2	293.50'	25°06'46"	128.64'	(1)
C3	24.00'	22°01'28"	9.23'	(1)
C4	291.00'	2°46'53"	14.13'	(1)
C5	31.00'	56°01'52"	30.32'	(1)
C6	31.00'	90°00'00"	48.69'	(1)

LINE TABLE – THIS SHEET ONLY			
NO.	BEARING	LENGTH	REFERENCE
L1	N89°57'52"E	593.32'	(1)
L2	N44°48'57"W	21.42'	(1)
L3	N25°04'39"E	32.59'	(1)
L4	N0°02'08"W	253.29'	(1)
L5	N0°02'08"W	2.00'	(1)
L6	N89°57'52"E	82.50'	(1)
L7	N0°02'08"W	42.00'	(1)
L8	N89°57'52"E	5.00'	(1)
L9	N0°02'08"W	105.00'	(1)
L10	N89°57'52"E	180.00'	(1)
L11	N89°57'52"E	62.00'	(1)

LINE TABLE – THIS SHEET ONLY			
NO.	BEARING	LENGTH	REFERENCE
L12	N81°54'49"E	55.00'	(1)
L13	N54°44'51"E	65.54'	(1)
L14	N63°03'19"W	143.67'	(1)
L15	N61°17'09"W	105.35'	(1)
L16	N29°53'30"E	41.32'	(1)
L17	N32°44'57"E	49.96'	(1)
L18	N38°09'43"E	50.00'	(1)
L19	N52°21'01"E	149.57'	(1)
L20	N80°58'12"E	102.10'	(1)
L21	N44°57'52"E	17.46'	(1)
L22	N84°59'35"W	26.66'	(1)

LINE TABLE – THIS SHEET ONLY			
NO.	BEARING	LENGTH	REFERENCE
L23	N89°57'52"E	127.22'	(1)
L24	N84°49'18"E	100.65'	(1)
L25	N88°49'08"E	98.90'	(1)
L26	N45°02'08"W	25.46'	(1)
L27	N0°02'08"W	1.57'	(1)
L28	N89°57'52"E	87.00'	(1)
L29	N0°02'08"W	9.57'	(1)
L30	N84°59'35"W	34.13'	(1)
L31	N89°57'52"E	125.00'	(1)
L32	N85°57'37"E	100.24'	(1)

SEE SHEET 2 FOR NOTES, BASIS OF BEARINGS, REFERENCES AND LEGEND.

FINAL MAP OF

GRANTLINE 220 UNIT 1

SUBDIVISION NO. FM-2021-004-01

BEING ALL OF LOTS 1, 7, A & B OF THAT CERTAIN LARGE LOT FINAL MAP OF GRANTLINE 220 FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13 CITY OF RANCHO CORDOVA, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

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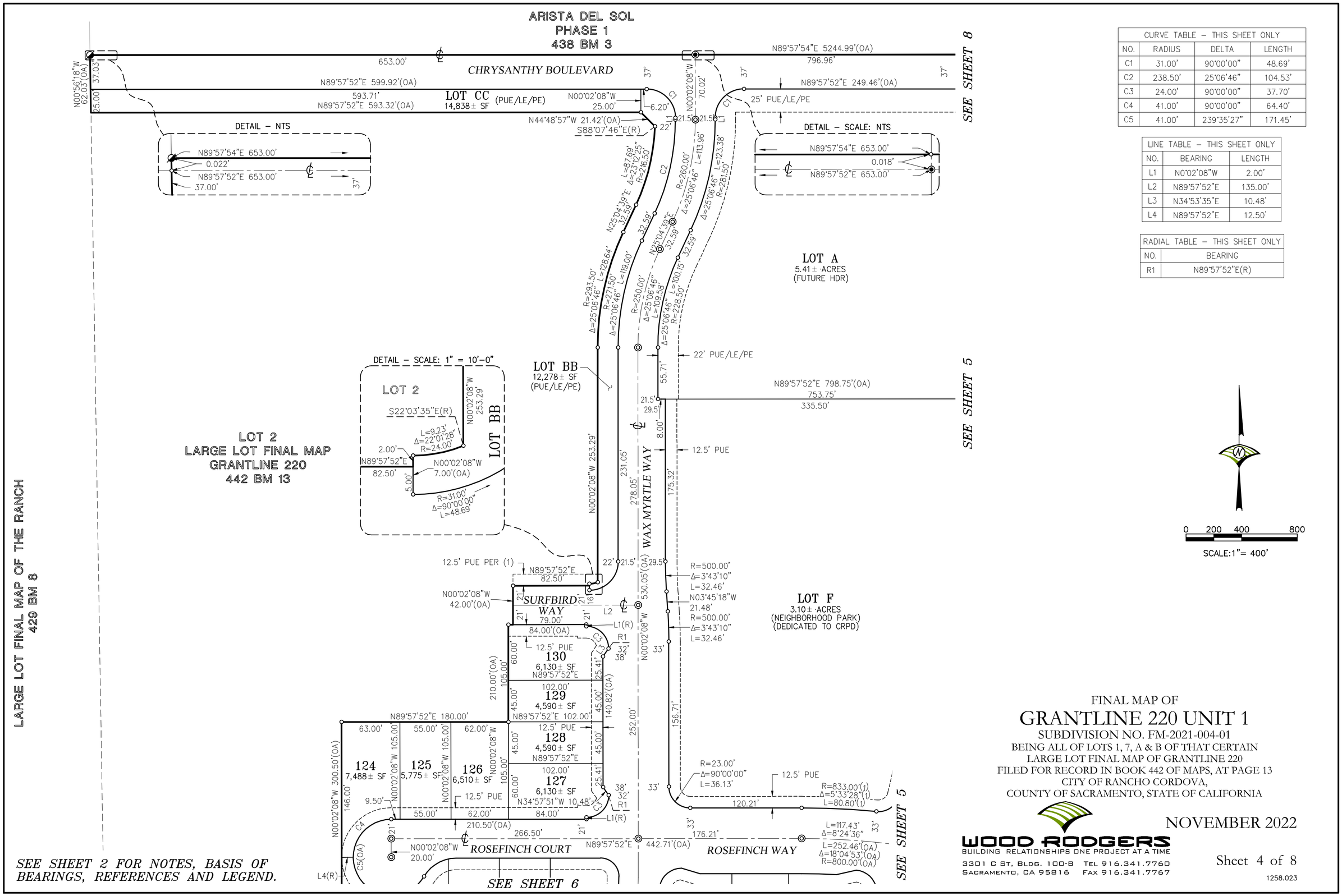
Sacramento, CA 95816 Fax 916.341.7767



CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	31.00'	90°00'00"	48.69'
C2	238.50'	25°06'46"	104.53'
C3	24.00'	90°00'00"	37.70'
C4	41.00'	90°00'00"	64.40'
C5	41.00'	239°35'27"	171.45'

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N0°02'08"W	2.00'
L2	N89°57'52"E	135.00'
L3	N34°53'35"E	10.48'
L4	N89°57'52"E	12.50'

RADIAL TABLE – THIS SHEET ONLY	
NO.	BEARING
R1	N89°57'52"E(R)

FINAL MAP OF

GRANTLINE 220 UNIT 1

SUBDIVISION NO. FM-2021-004-01
BEING ALL OF LOTS 1, 7, A & B OF THAT CERTAIN
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Sheet 4 of 8

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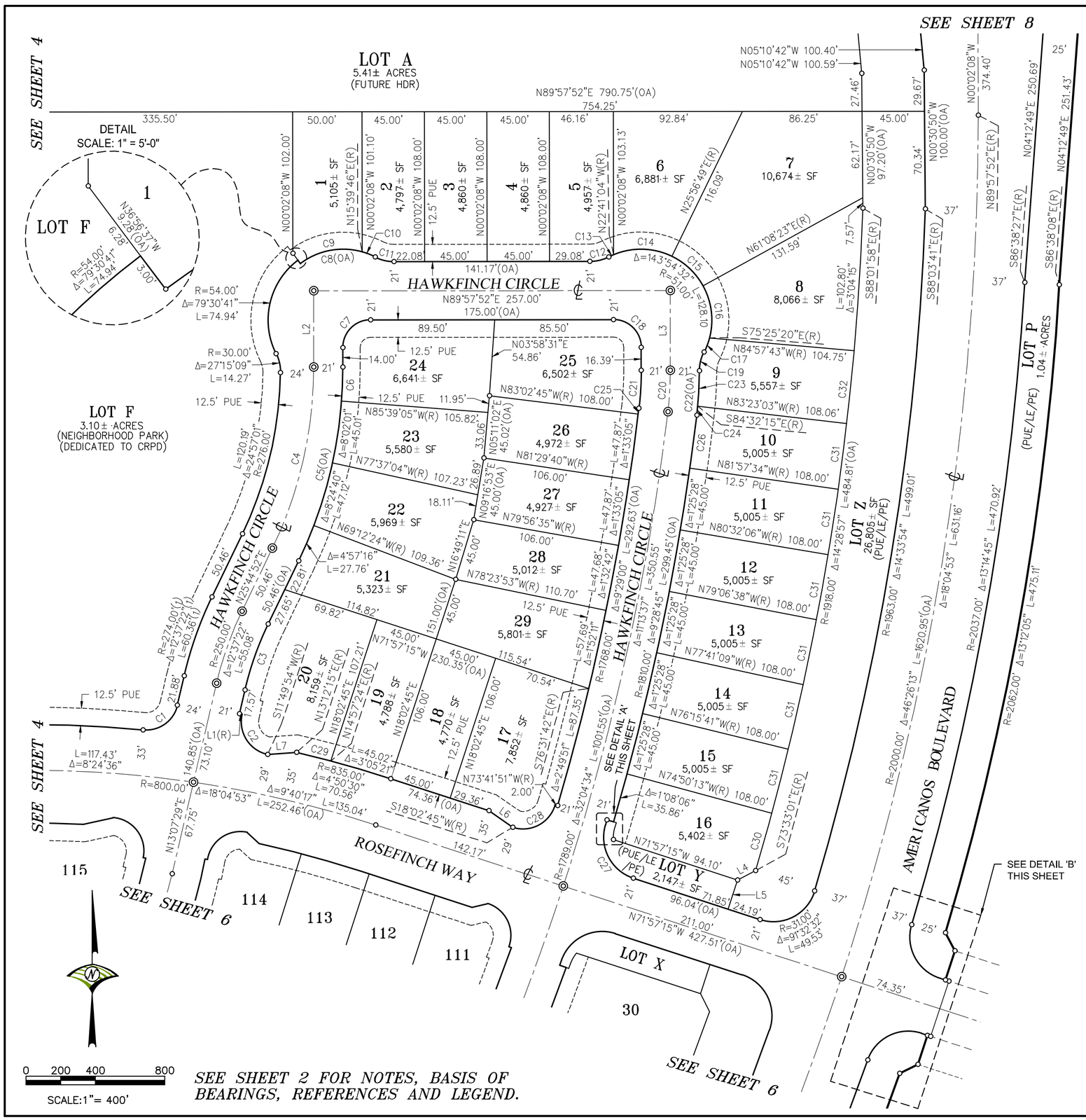
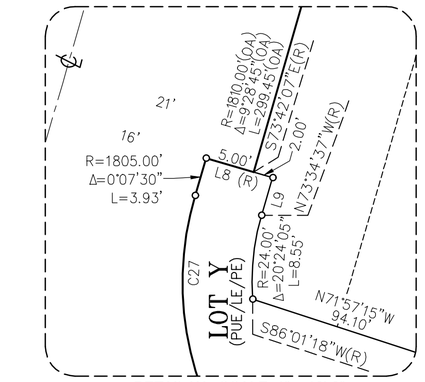
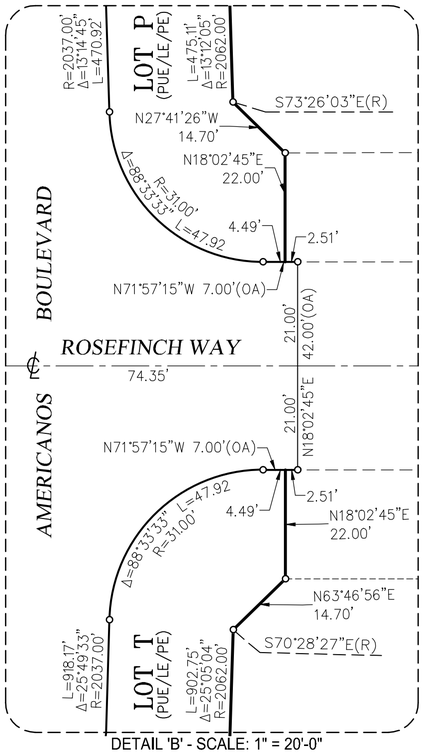
SEE SHEET 2 FOR NOTES, BASIS OF BEARINGS, REFERENCES AND LEGEND.





DETAIL 'A' - SCALE: 1" = 10'-0"



DETAIL 'B' - SCALE: 1" = 20'-0"

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	23.00'	82°23'51"	33.08'
C2	24.00'	91°17'35"	38.24'
C3	229.00'	12°37'22"	50.45'
C4	300.00'	25°46'59"	135.00'
C5	321.00'	25°46'59"	144.45'
C6	321.00'	4°23'02"	24.56'
C7	20.00'	90°00'00"	31.42'
C8	51.00'	63°51'44"	56.84'
C9	51.00'	52°36'22"	46.83'
C10	51.00'	11°15'21"	10.02'
C11	30.00'	26°57'15"	14.11'
C12	30.00'	26°57'15"	14.11'
C13	51.00'	4°18'18"	3.83'
C14	51.00'	48°37'53"	43.29'
C15	51.00'	35°11'34"	31.33'
C16	51.00'	43°26'17"	38.67'
C17	51.00'	12°20'29"	10.99'
C18	20.00'	90°00'00"	31.42'
C19	30.00'	26°51'18"	14.06'
C20	250.00'	6°51'16"	29.91'
C21	229.00'	6°51'16"	27.40'
C22	271.00'	6°45'17"	31.95'
C23	271.00'	5°23'54"	25.53'
C24	271.00'	1°21'23"	6.42'
C25	1768.00'	0°08'07"	4.17'
C26	1810.00'	1°13'17"	38.59'
C27	31.00'	88°22'37"	47.82'
C28	24.00'	91°44'37"	38.43'
C29	835.00'	1°45'09"	25.54'
C30	1918.00'	1°17'12"	43.07'
C31	1918.00'	1°25'28"	47.69'
C32	1918.00'	1°34'41"	52.82'

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N76°52'31"W	2.00'
L2	N0°02'08"W	55.00'
L3	N0°02'08"W	57.39'
L4	N62°15'15"E	14.55'
L5	N18°02'45"E	22.00'
L6	N55°15'17"W	20.88'
L7	N85°45'51"E	20.81'
L8	N73°42'07"W	7.00'
L9	N16°17'53"E	3.95'

FINAL MAP OF

GRANTLINE 220 UNIT 1

SUBDIVISION NO. FM-2021-004-01
BEING ALL OF LOTS 1, 7, A & B OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
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NOVEMBER 2022

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Sacramento, CA 95816 Fax 916.341.7767

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N89°57'52"E	12.50'
L2	N73°20'10"W	20.88'
L3	N77°39'49"E	21.88'
L4	N78°31'01"W	2.00'
L5	N80°12'09"W	2.00'
L6	N47°09'07"W	11.70'
L7	N77°04'56"E	11.66'
L8	N70°12'38"W	2.00'
L9	N18°02'45"E	22.00'
L10	N26°09'44"W	14.55'

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	40.00'	59°35'27"	41.60'
C2	40.00'	47°31'53"	33.18'
C3	40.00'	12°03'34"	8.42'
C4	20.00'	90°00'00"	31.42'
C5	291.00'	2°46'53"	14.13'
C6	24.00'	87°28'08"	36.64'
C7	762.00'	2°49'19"	37.53'
C8	24.00'	97°07'13"	40.68'
C9	229.00'	4°30'24"	18.01'
C10	250.00'	2°51'53"	12.50'
C11	271.00'	6°11'31"	29.29'
C12	24.00'	91°48'44"	38.46'
C13	765.00'	5°41'14"	75.93'
C14	765.00'	2°21'31"	31.49'
C15	765.00'	3°19'43"	44.44'
C16	24.00'	91°44'37"	38.43'
C17	31.00'	88°22'37"	47.82'
C18	31.00'	91°32'32"	49.53'
C19	979.00'	0°12'37"	3.59'
C20	1021.00'	1°07'11"	19.95'
C21	1556.00'	2°47'00"	75.59'
C22	1556.00'	1°08'13"	30.87'
C23	20.00'	88°30'33"	30.90'
C24	20.00'	91°20'38"	31.89'

RADIAL TABLE – THIS SHEET ONLY	
NO.	BEARING
R1	N00°02'08"W(R)
R2	N2°47'12"E(R)
R3	N4°21'46"E(R)
R4	N11°36'35"E(R)
R5	N12°21'31"E(R)

FINAL MAP OF

GRANTLINE 220 UNIT 1

SUBDIVISION NO. FM-2021-004-01

BEING ALL OF LOTS 1, 7, A & B OF THAT CERTAIN LARGE LOT FINAL MAP OF GRANTLINE 220 FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13

CITY OF RANCHO CORDOVA, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	301.00'	3°59'42"	20.99'
C2	20.00'	88°30'33"	30.90'
C3	20.00'	91°20'38"	31.89'
C4	513.00'	0°50'32"	7.54'
C5	1810.00'	0°39'53"	21.00'
C6	555.00'	4°18'31"	41.74'
C7	30.00'	26°57'15"	14.11'
C8	51.00'	57°03'57"	50.80'
C9	30.00'	26°57'15"	14.11'
C10	30.00'	2°16'27"	1.19'

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C11	30.00'	24°40'48"	12.92'
C12	30.00'	26°57'15"	14.11'
C13	51.00'	0°53'20"	0.79'
C14	51.00'	47°48'50"	42.56'
C15	30.00'	26°57'15"	14.11'
C16	30.00'	17°05'04"	8.95'
C17	30.00'	9°52'11"	5.17'

SEE SHEET 2 FOR NOTES, BASIS OF BEARINGS, REFERENCES AND LEGEND.

0 200 400 800

SCALE:1"= 400'

FINAL MAP OF

GRANTLINE 220 UNIT 1

SUBDIVISION NO. FM-2021-004-01

BEING ALL OF LOTS 1, 7, A & B OF THAT CERTAIN LARGE LOT FINAL MAP OF GRANTLINE 220 FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13 CITY OF RANCHO CORDOVA, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

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Sheet 7 of 8

1258.023

ARISTA DEL SOL
PHASE 1 FM
438 BM 3

N89°57'54"E 796.96'
0.013'
N89°57'52"E 796.96'
DETAIL – SCALE: NTS

SEE SHEET 4

N89°57'54"E 5244.99'(OA)
796.96'
958.60'

CHRYSANTHY BOULEVARD

N89°57'52"E
249.46'
N26°23'09"E 27.92'
N86°36'06"W 250.45'
N89°57'52"E 169.00'(OA)
152.00'
25' PUE/PE
N03°25'14"E 26.24'
N86°34'46"W 170.00'
N03°23'54"E 27.00'
PE

LOT A
5.41± ACRES

N0°02'08"W 192.02'
17.00'
N89°57'52"E(R)
L=48.69'
Δ=90°00'00"
R=31.00'
N0°02'08"W(R)
N84°59'35"W 34.13'
N89°57'52"E 125.00'
N84°49'18"E 100.40'
N88°49'08"E 100.02'
N89°57'52"E 464.60'

LOT P
1.04± ACRES (PUE/LE/PE)

N89°57'52"E 127.22'
N84°59'35"W 26.66'
N44°57'52"E 17.46'
N84°49'18"E 100.65'
N88°49'08"E 98.90'
N89°57'52"E 463.01'

LOT AA
14,341± SF
(PE/LE/PUE)

N00°02'08"W 125.00'
N05°00'25"E 34.13'
N00°02'08"W 374.40'
N05°10'42"W 100.41'
N05°10'42"W 100.59'

AMERICANOS BOULEVARD

N00°02'08"W 169.00'
N00°02'08"W 162.93'
N04°12'49"E 250.69'
N04°12'49"E 251.43'

LOT 5
LARGE LOT FINAL MAP
GRANTLINE 220
442 BM 13

MATCHLINE 'A'

SEE SHEET 5

N89°57'54"E 958.60'
0.007'
N89°57'52"E 958.60'
DETAIL – SCALE: NTS

ARISTA DEL SOL
PHASE 1 FM
438 BM 3

DETAIL – SCALE: NTS
N89°57'54"E 43.93'
NORTHERLY BOUNDARY LINE
0.003'
N89°57'52"E 43.93'
CRYSANTHY BOULEVARD CENTERLINE
N89°57'54"E
1770.57'

MATCHLINE 'A'

N89°57'54"E 5244.99'(OA)
958.60'
1021.93'
1814.49'

CHRYSANTHY BOULEVARD

N89°57'52"E 464.60'
N89°57'52"E 911.93'
N89°57'52"E 125.00'
N84°59'35"W 34.13'
N85°57'37"E 100.24'
N89°57'52"E 833.19'

LOT P
1.04± ACRES (PUE/LE/PE)

L1
22.00'
N89°57'52"E 463.01'
N45°02'08"W 14.63'(OA)
22' PUE PER (1)

CYPRESS GROVE DRIVE

L2
22.00'
N89°57'52"E 898.59'
N44°57'52"E 14.63'(OA)
22' PUE PER (1)

LOT M
24,868± SF (PUE/LE/PE)

L3
25.00'
N45°02'08"W 25.46'
N00°02'08"W 1.57'
25' PUE PER (1)

N0°02'08"W 72.35'
N0°02'08"W 81.57'
L=48.69'
Δ=90°00'00"
R=31.00'
27.00'
35.00'
N89°57'52"E 87.00'(OA)

GREY OWL WAY

L4
N0°02'08"W(R)
25' PUE PER (1)

LOT 5
LARGE LOT FINAL MAP
GRANTLINE 220
442 BM 13

LOT 6
LARGE LOT FINAL MAP
GRANTLINE 220
442 BM 13

LOT 8
LARGE LOT FINAL MAP
GRANTLINE 220
442 BM 13

MATCHLINE 'B'

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N0°02'08"W	4.34'
L2	N0°02'08"W	4.34'
L3	N0°02'08"W	13.57'
L4	N0°02'08"W	9.57'

0 25 50 100
SCALE:1"= 50'

ARISTA DEL SOL
PHASE 1 FM
438 BM 3

CHRYSANTHY BOULEVARD
N89°57'52" 5280.50'
N00°38'45"W 0.0115'
N89°57'54" 5285.00'(OA)
4.50'
GRANT LINE ROAD
DETAIL – SCALE: NTS

MATCHLINE 'B'

N89°57'54"E 5244.99'(OA)
1814.49'

CHRYSANTHY BOULEVARD

N86°36'34"W 251.00'
N89°57'52"E 381.00'
65.67'
N00°52'12"W
R=31.00' Δ=56°01'52" L=30.32'
N55°59'44"E(R)

GRANT LINE ROAD

REMAINDER
LARGE LOT FINAL MAP GRANTLINE 220
442 BM 13

SEE SHEET 2 FOR NOTES, BASIS OF BEARINGS, REFERENCES AND LEGEND.

FINAL MAP OF

GRANTLINE 220 UNIT 1

SUBDIVISION NO. FM-2021-004-01
BEING ALL OF LOTS 1, 7, A & B OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

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3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

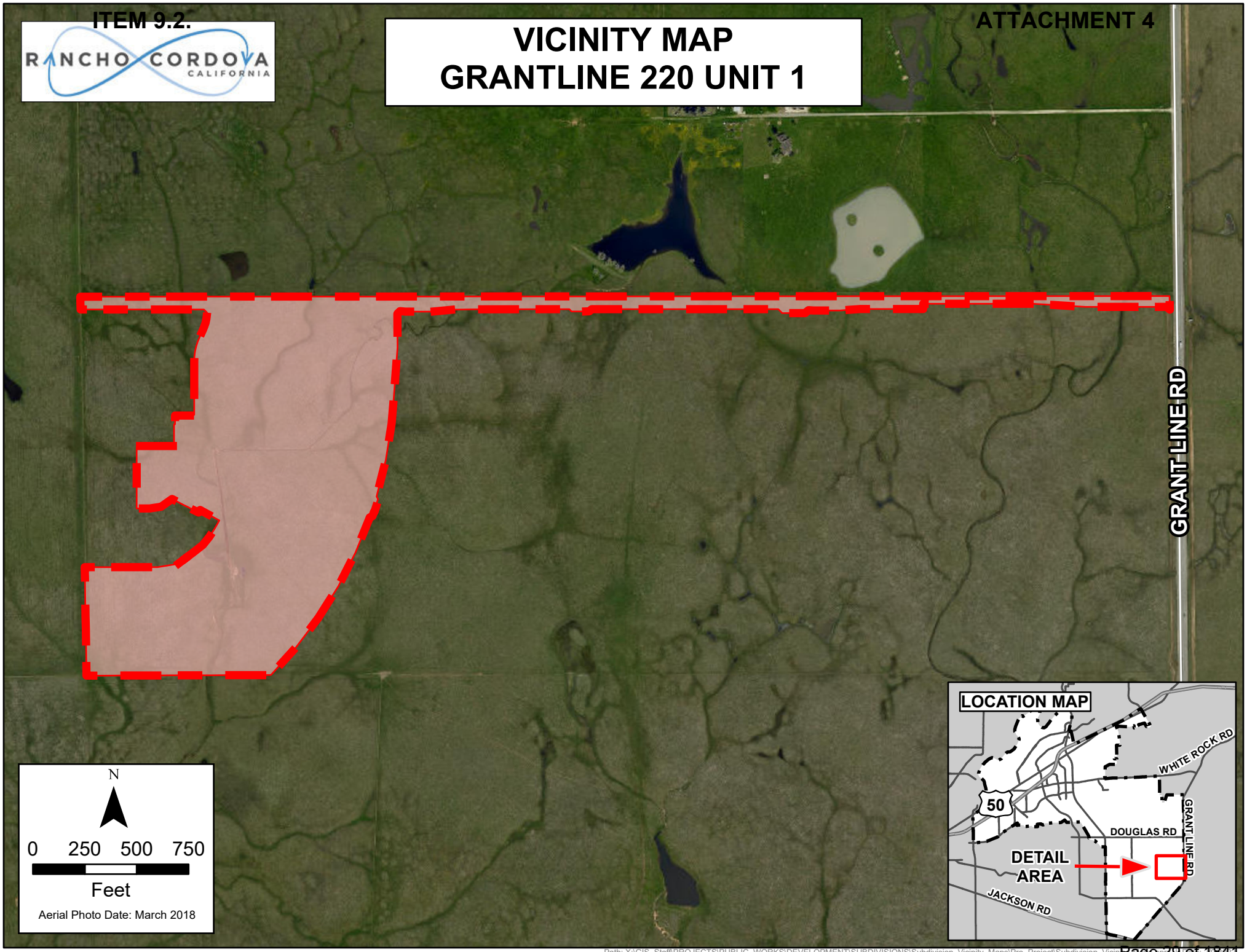
Sheet 8 of 8

1258.023

ITEM 9.2.

ATTACHMENT 4

VICINITY MAP
GRANTLINE 220 UNIT 1



Path: X:\GIS_Staff\PROJECTS\PUBLIC_WORKS\DEVELOPMENT\SUBDIVISIONS\Subdivision_Vicinity_Maps\Pro_Project\Subdivision_Vicinity_Maps.aprx Date: 2/9/2021

MEMORANDUM

ITEM 9.3.

DATE: November 21, 2022

TO: Honorable Mayor and Council Members

FROM: Albert Stricker, Public Works Director
Quoc Nham, Senior Civil Engineer

SUBJECT: **A RESOLUTION APPROVING THE FINAL MAP OF GRANTLINE 220 UNIT 2, SUBDIVISION NO. FM-2021-004-02, AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE SUBDIVISION IMPROVEMENT AGREEMENT 2022-227 WITH LENNAR HOMES OF CALIFORNIA, LLC**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would approve the Final Map of Grantline 220 Unit 2 Subdivision No. FM-2020-004-02 and Authorize the City Manager to Execute Subdivision Improvement Agreement 2022-227 with Lennar Homes of California, LLC.

BACKGROUND

The map has been examined and checked for compliance with Title 22 of the City of Rancho Cordova Municipal Code and the California Subdivision Map Act. The City Council approved the Tentative Subdivision Map on June 7, 2021. A copy of the final map, Attachment 3, and copy of the vicinity map, Attachment 4, are included with this letter. The developer has chosen a theme of bird species for neighborhood roadway names.

Roads are offered for dedication with this subdivision. Lennar Homes of California, LLC has provided a performance and labor and material bond guaranteeing the construction of the public improvements. Wood Rodgers has waived the requirement for a bond to guarantee payment for setting the survey monuments with the subdivision. The soil report requirement has been satisfied by Wallace Kuhl & Associates dated August 4, 2021.

There are no delinquent taxes against the property and the Tax Collector has so certified. The 2022/2023 estimated taxes have been secured with the Sacramento County Tax Collector.

FISCAL IMPACT AND FUNDING SOURCE

There is no fiscal impact to the City.

ATTACHMENT(S)

1. Resolution
2. SIA Contract No. 2022-227
3. Final Map
4. Vicinity Map

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, APPROVING THE FINAL MAP OF GRANTLINE 220 UNIT 2 SUBDIVISION NO. FM-2021-004-02, AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE SUBDIVISION IMPROVEMENT AGREEMENT 2022-227 WITH LENNAR HOMES OF CALIFORNIA, LLC

WHEREAS, the City Council approved the Tentative Subdivision Map on June 7, 2021, per Resolution No. 91-2021; and

WHEREAS, the map is in substantial compliance with the approved tentative map; and

WHEREAS, the conditions of approval have been complied with; and

WHEREAS, the map complies with Title 22 of the City of Rancho Cordova municipal code and the California Subdivision Map Act; and

WHEREAS, the approval of final maps is exempt from review under the California Environmental Quality Act (CEQA) pursuant to CEQA Regulation Section 15268(b)(3) as a ministerial approval; and

WHEREAS, the City desires to enter into a subdivision improvement agreement with the developer to ensure necessary public improvements are completed and secured with a bond.

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does approve the Final Map of Grantline 220 Unit 2 Subdivision No. FM-2021-004-02 and does authorize the City Manager to execute Subdivision Improvement Agreement 2022-227 with Lennar Homes of California, LLC in a form approved by the City Attorney.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 21st day of November 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

_____
Donald Terry, Mayor

_____
Stacy Leitner, CMC
City Clerk

SUBDIVISION IMPROVEMENT AGREEMENT

GRANTLINE 220 UNIT 2 FM-2021-004-02

THIS SUBDIVISION IMPROVEMENT AGREEMENT (hereinafter, "Agreement") entered into this _____ day of _____, 20__, by and between the City of Rancho Cordova, (hereinafter "City"), a California municipal corporation, and Lennar Homes of California, LLC, a California limited liability company (hereinafter "Principal").

RECITALS

WHEREAS, Section 66462 of the Government Code provides that if the work of improvement required therein is not completed prior to the acceptance of a final subdivision map, the owner of the subdivision may enter into an agreement with the City to perform the work of improvement as required by said sections in consideration of the acceptance of said final subdivision map by the City; and

WHEREAS, Section 66499 of the Government Code requires that said agreement be secured by a surety bond or by an instrument of credit issued by a financial institution subject to regulation by the State or federal governments or by a cash deposit; and

WHEREAS, Section 66499.3 establishes the types and amount of security to guarantee the performance of any such improvement agreement; and

WHEREAS, City and Principal desire to enter into an improvement agreement as authorized by the Subdivision Map Act under the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the mutual promises, conditions and covenants hereinafter set forth, City and Principal agree as follows:

1. Incorporation of Recitals. The foregoing recitals are hereby incorporated by reference.

2. Findings and Conditions of Subdivision Map. Principal recognizes that approval of its subdivision was subject to the findings and conditions attached to such approval and hereby acknowledges and agrees to be bound by such findings and conditions.

3. City Approval of Subdivision Map. City agrees to approve the final map of the subdivision presented to it by Principal and designated Grantline 220 Unit 2, FM-2021-004-02 and to accept on behalf of the public all lands, rights of way and easements therein offered in dedication, in accordance with the conditions hereinafter set forth.

4. Completion of Improvements. In consideration of such approval, Principal

agrees to complete the work of improvement required for said subdivision in accordance with the requirements of the Rancho Cordova Municipal Code and such standard specifications created by applicable City ordinances or resolutions which are in effect at the time of the installation of said improvements. The work required may lie within or outside the subdivision and must be completed within **24** months of the date of this Agreement.

5. Payment For Services. Principal further agrees to promptly pay, when due, all costs for plan checking, inspection services and material testing performed by City pursuant to the requirements of Sections 12.03.210 et. seq. of the Rancho Cordova Municipal Code.

6. Community Facilities Renovation Fee. Principal acknowledges that under the terms of the Development Agreement by and between The City of Rancho Cordova and Grantline & Chrystanthy 220 Investors, LLC Relative to the Suncreek Project Recorded as Sacramento County Recorder # **20140121 page 1146.** Principal is obligated to pay the City a fee in Section 6 of the above Development Agreement per single family lot within the Final Map ("Community Facilities Renovation Fee"). Principal acknowledges and agrees that such fee will be paid prior to the issuance of a building permit for the respective lot.

7. Acceptance of Improvements. Upon satisfactory completion of all public improvements in accordance with standard specifications created by City ordinances or resolutions which are in effect at the time of the installation of said improvements, City agrees to accept for maintenance the work of improvement within the dedicated parcels shown on said final subdivision map, and any off site easements granted, subject to the provisions of paragraph 9 hereof. Acceptance will be postponed until such time the City determines a public purpose exists. Public Purpose is defined as existence of habitable structures within the subdivision.

8. Notice of Commencement of Work. Principal shall notify the City Engineer in writing of the commencement of the work of improvements.

9. Correction of Defects. Principal agrees to remedy any defects in the improvement arising from faulty or defective construction of said improvements occurring within twelve months after acceptance thereof by City.

10. Indemnity. Principal shall indemnify and hold harmless with counsel selected by the City, the City of Rancho Cordova, its agents, officers, consultants, and employees (“City”) from any and all loss, damage or liability arising out of or resulting from Principal's performance or non-performance of his duties and obligations under this Agreement, or from the negligent act or omission of himself, his agents, servants and employees. Principal shall, at his own cost

and expense, defend any and all actions, suits, or legal proceedings arising out of or resulting from the performance or nonperformance of this Agreement, that may be brought or instituted against the City, its officers and employees, on any such claim or demand, and pay or satisfy any judgment that may be rendered against the City in any such action, suit or legal proceedings, or result thereof, regardless whether caused in part by a party indemnified hereunder.

11. Extension of Completion Date. If the construction of the work or improvement should be delayed without fault of Principal, the time for completion thereof may be extended by City for such period of time as City may deem reasonable.

12. Improvement Security. (a) Principal shall obtain and furnish to City an improvement security consisting of a surety bond in favor of City, issued by a corporate surety authorized to do business in the State of California, and in form approved by City, securing the faithful performance by Principal of the work of improvement required, and also securing the payment of the costs and interest, if any, due under Sections 12.030.210 et seq. of the Rancho Cordova Municipal Code, as provided in Paragraph 5 herein and an additional bond issued by a corporate surety authorized to do business in the State of California, in the amount of not less than 50 percent of the total estimated cost of the improvement, securing payment to contractor, his subcontractors, and to persons renting equipment or furnishing labor or materials for the improvement.

(b) In lieu of said corporate surety bonds, Principal may furnish an improvement security consisting of a letter of credit, certificate of deposit, or similar instrument of credit, in form satisfactory to City, issued by a financial institution subject to regulation by the State or Federal government, pledging that the funds necessary to meet the performance required herein are on deposit, and guaranteed for payment on demand. Said letter of credit, certificate of deposit, or similar instrument of credit shall provide that the funds designated therein shall become trust funds for the purposes set forth in said instrument.

(c) The failure of Principal to commence the required work of improvements, or to complete the same within the time required after commencement thereof, shall entitle City to the full payment of the security, or so much thereof as may be necessary to complete the required work of improvement. The amount of the surety bond for faithful performance shall be in the sum of **$2,015,000**. The amount of the surety bond for the payment of the claims of the contractor, his subcontractors, and to persons renting equipment or furnishing labor or materials for the improvement shall be at least 50 percent of the above amount. The letter of credit,

certificate of deposit or similar instrument of credit, or cash deposit for faithful performance, shall be in the above amount plus an additional 50 percent for the purposes set forth herein.

13. Improvement Security As Condition Precedent. The furnishing of the improvement security by Principal as required by paragraph 12 hereof shall be a condition precedent to acceptance by City of the above described real property and the performance by the City of the covenants herein on its part to be performed.

14. Inspection of Work In Progress. (a) Principal may request The City Engineer to inspect the work as it progresses. If the work performed is found to be in accordance with the requirements of City, it may be accepted as it progresses and a partial refund of the cash deposit, or a release pro tanto of the faithful performance bond, letter of credit, certificate of deposit or similar instrument of credit shall be made in a sum in the same ratio to the total deposit as the work accepted bears to the total work to be done. No refund in excess of 85 percent of the total amount of the improvement security for faithful performance shall be made until all the work has been completed and accepted.

(b) The determination of the Administrator of Public Works of City as to the amount of work done, and the amount of refund or partial release pro tanto, shall be final and conclusive. When the work of improvement is accepted, 10 percent of the improvement security shall be retained to guarantee faithful performance of the provisions of paragraph 9 of this Agreement.

(c) Improvement security given to secure payment to contractor, his subcontractors and to persons renting equipment or furnishing labor or materials for the work of improvement may, six months after completion and acceptance of the work, be reduced to an amount not less than the total of all claims on which an action has been filed, and notice thereof given in writing to City, and if there are no actions filed, such improvement security may be released in full.

15. Execution By Real Party In Interest. Where title to the subdivision property is held by the record owner thereof under a holding Agreement, this Agreement and the bond given pursuant thereto must be executed by the real party or parties in interest.

16. Waiver of Civil Code Section 2819. Any extension of time hereunder shall not operate to release the surety on the bond filed pursuant to this Agreement. In this connection the surety waives the provisions of Section 2819 of the Civil Code of the State of California.

17. City Construction of Improvements. In the event that all or any portion of the works of improvement contemplated herein are proposed to be constructed by street improvement proceedings under the control of City, the undertaking of such proceedings shall in

no way relieve Principal of any duties under this Agreement, except where all of the works of improvement that are required under this Agreement have in fact been constructed and accepted by City.

18. Interest. Interest shall accrue at the highest rate permitted by law on all sums from the date payment is due under the terms of this Agreement and the sum due is certain or reasonably capable of being made certain.

19. Attorneys' Fees. In the event that it is necessary for the City to enforce the obligations secured by the improvement security furnished pursuant to Paragraph 12 hereof, the City shall be entitled to recover its costs and reasonable expenses and fees, including reasonable attorneys' fees, as provided for in Government Code Section 66499.4.

20. Amendments. This Agreement may be modified or amended, or any of its provisions waived, only by a subsequent written agreement executed by the parties hereto.

20. Entire Agreement. This Agreement and any attachments hereto constitute the sole, final, complete, exclusive and integrated expression and statement of the terms and conditions of this Agreement among the parties hereto concerning the subject matter addressed herein, and supercedes all prior negotiations, representations or agreements, oral or written, that may be related to the subject matter of this Agreement.

22. Construction and Interpretation. It is agreed and acknowledged by the Principal that the provisions of this Agreement have been arrived at through negotiation, and that the Principal has had a full and fair opportunity to revise the provisions of this Agreement and to have such provisions reviewed by legal counsel. Therefore, the normal rule of construction that any ambiguities are to be resolved against the drafting party shall not apply in construing or interpreting this Agreement.

23. Successors and Assigns. This Agreement shall bind and inure to the benefit of the respective successors and assigns of the parties hereto.

24. Time. Time is of the essence in the performance of each and every term of this Agreement.

SIGNATURE PAGE FOLLOWING

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first set forth above, which date shall be considered by the Parties to be the effective date of this Agreement.

CITY OF RANCHO CORDOVA,
California Municipal Corporation

_____
Cyrus Abhar, City Manager

Date: _____

LENNAR HOMES OF CALIFORNIA, LLC.,
a California limited liability company
(as successor-in-interest by conversion to Lennar Homes of California, Inc., a California corporation)

_____
Larry Gualco, Sr. Vice President

Date: _____

ATTEST:

_____
Stacy Leitner, CMC, City Clerk

OWNER'S STATEMENT

THE UNDERSIGNED HEREBY CONSENT TO THE PREPARATION AND RECORDING OF THIS FINAL MAP OF GRANTLINE 220 UNIT 2.

THE REAL PROPERTY DESCRIBED BELOW IS DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES:

THE UNDERSIGNED HEREBY OFFERS FOR DEDICATION AND DOES HEREBY DEDICATE TO ANY AND ALL PUBLIC USES, THE PUBLIC ROADS DESIGNATED HEREON AS SURFBIRD WAY, ARCTIC TERN CIRCLE, AND ARCTIC TERN WAY, AS SHOWN HEREON, AND DOES HEREBY DEDICATE TO SPECIFIC PURPOSES THE FOLLOWING:

1. EASEMENT FOR PLANTING AND MAINTAINING TREES, ELECTROLIERS, TRAFFIC CONTROL DEVICES, WATER AND GAS PIPES, AND UNDERGROUND WIRES AND CONDUITS FOR ELECTRIC, TELEVISION AND TELEPHONE SERVICES, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO, ON, OVER, UNDER AND ACROSS LOT DD AND THOSE STRIPS OF LAND 12.50' IN WIDTH, LYING CONTIGUOUS TO THE PUBLIC STREETS SHOWN HEREON AND DESIGNATED "PUBLIC UTILITY EASEMENT" (PUE).
2. EASEMENTS FOR LANDSCAPING AND ALL APPURTENANCES PERTAINING THERETO LYING ON, OVER AND ACROSS LOT DD SHOWN HEREON AND DESIGNATED "LANDSCAPING EASEMENT" (LE).
3. RIGHT OF WAYS AND EASEMENTS FOR THE INSTALLATION AND MAINTENANCE OF A PEDESTRIAN WALKWAY, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO ON, OVER, UNDER AND ACROSS LOT DD SHOWN HEREON AND DESIGNATED "PEDESTRIAN EASEMENT" (PE).
4. AN EASEMENT FOR CONSTRUCTING AND MAINTAINING CENTRALIZED MAIL DELIVERY BOXES, PEDESTALS, AND SLABS, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO INCLUDING PEDESTRIAN ACCESS FOR DELIVERY AND RECEIPT OF MAIL ON, OVER, UNDER AND ACROSS STRIPS OF LAND FIVE FEET IN WIDTH LYING CONTIGUOUS TO THE PUBLIC STREETS SHOWN HEREON.

LENNAR HOMES OF CALIFORNIA, LLC
A CALIFORNIA LIMITED LIABILITY COMPANY
(AS SUCCESSOR-IN-INTEREST BY CONVERSION TO
LENNAR HOMES OF CALIFORNIA, INC., A CALIFORNIA CORPORATION)

BY: _____

NAME: _____

TITLE: _____

NOTARY'S ACKNOWLEDGMENT

A NOTARY PUBLIC OR OTHER OFFICER COMPLETING THIS CERTIFICATE VERIFIES ONLY THE IDENTITY OF THE INDIVIDUAL WHO SIGNED THE DOCUMENT TO WHICH THIS CERTIFICATE IS ATTACHED, AND NOT THE TRUTHFULNESS, ACCURACY, OR VALIDITY OF THAT DOCUMENT.

STATE OF CALIFORNIA)
COUNTY OF _____) SS

ON _____ DAY OF _____, 2022 BEFORE ME, _____,
A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, PERSONALLY APPEARED

_____,WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND AND OFFICIAL SEAL: _____

PRINTED NAME: _____

MY PRINCIPAL PLACE OF BUSINESS IS IN THE
COUNTY OF: _____

MY COMMISSION EXPIRES: _____

MY COMMISSION No.: _____

SURVEYOR'S STATEMENT

THIS FINAL MAP OF GRANTLINE 220 UNIT 2 WAS PREPARED BY ME OR UNDER MY DIRECTION AND IS BASED UPON A FIELD SURVEY IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AND LOCAL ORDINANCE AT THE REQUEST OF LENNAR HOMES OF CALIFORNIA, LLC, IN OCTOBER, 2021. I HEREBY STATE THAT ALL THE MONUMENTS SHOWN HEREON ARE OF THE CHARACTER AND OCCUPY THE POSITIONS INDICATED OR THAT THEY WILL BE SET IN THOSE POSITIONS BEFORE NOVEMBER 30, 2024 AND THAT THE MONUMENTS ARE, OR WILL BE, SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

WOOD RODGERS, INC.

PROFESSIONAL LAND SURVEYOR
ANDREW P. TAPLEY
9554
STATE OF CALIFORNIA

_____
ANDREW P. TAPLEY
P.L.S. 9554

_____
DATE

CITY ENGINEER'S STATEMENT

I HEREBY STATE THAT I HAVE EXAMINED THIS FINAL MAP OF GRANTLINE 220 UNIT 2 AND FIND IT TO BE SUBSTANTIALLY THE SAME AS THE TENTATIVE MAP APPROVED BY THE CITY OF RANCHO CORDOVA, AND ANY APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF THE SUBDIVISION MAP ACT AND ALL APPLICABLE CITY ORDINANCES HAVE BEEN COMPLIED WITH.

_____
CITY ENGINEER, ALBERT STRICKER, R.C.E. 64057

DATED: _____

REGISTERED PROFESSIONAL ENGINEER
ALBERT STRICKER
No. 64057
CIVIL
STATE OF CALIFORNIA

CITY SURVEYOR'S STATEMENT

I HEREBY STATE THAT I AM SATISFIED THAT THIS FINAL MAP OF GRANTLINE 220 UNIT 2 IS TECHNICALLY CORRECT.

_____
LAND SURVEYOR, CYRUS E. ABHAR, P.L.S. 7723

DATED: _____

LICENSED LAND SURVEYOR
CYRUS E. ABHAR
No. 7723
STATE OF CALIFORNIA

CITY CLERK'S STATEMENT

I HEREBY STATE THAT THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA HAS APPROVED THIS FINAL MAP OF GRANTLINE 220 UNIT 2 AND HAS ACCEPTED ON BEHALF OF THE PUBLIC ALL EASEMENTS AND RIGHTS-OF-WAY SHOWN HEREON, SUBJECT TO COMPLETION OF THE IMPROVEMENTS.

BY: _____
CITY CLERK
CITY OF RANCHO CORDOVA

DATED: _____

RECORDER'S STATEMENT

FILED THIS_____DAY OF _____, 2022, AT _____ ___.M. IN BOOK _____ OF MAPS, AT PAGE _____ AT THE REQUEST OF WOOD RODGERS, INC. TITLE TO THE LAND INCLUDED IN THIS FINAL MAP BEING VESTED AS PER CERTIFICATE NO. _____ ON FILE IN THIS OFFICE.

DONNA ALLRED, COUNTY RECORDER
COUNTY OF SACRAMENTO

DOCUMENT NO.: _____

BY: _____
DEPUTY RECORDER

FEE: $ _____

FINAL MAP OF

GRANTLINE 220 UNIT 2

SUBDIVISION NO. FM-2021-004-02
BEING ALL OF LOT 2 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

Sheet 1 of 4

1258.023

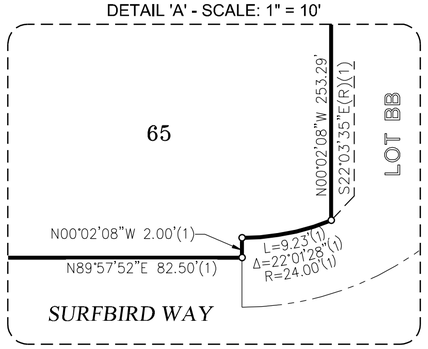
BOUNDARY SHEET

NOTES

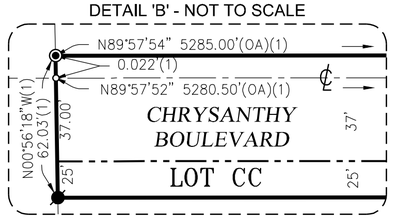
1. ALL CURVES DIMENSIONED WITH RADIUS, DELTA, AND ARC LENGTH.
2. ALL DISTANCES SHOWN HEREON ARE EXPRESSED IN FEET AND DECIMALS THEREOF.
3. DUE TO ROUNDING, THE SUM OF THE INDIVIDUAL DIMENSIONS MAY NOT EQUAL THE OVERALL DIMENSION.
4. TOTAL AREA FOR THIS "GRANTLINE 220 UNIT 2" FINAL MAP IS 13.55± ACRES, CONSISTING OF 79 RESIDENTIAL LOTS AND 1 LANDSCAPE LOT.
5. A 5/8" REBAR CAPPED "LS 8067" WILL BE SET AT ALL REAR LOT CORNERS, ALONG WITH ALL LOT LINE ANGLE POINTS OR AT A 2.00 FOOT PROJECTION ALONG LOT LINES ADJACENT TO WALLS (2.00 FOOT BY 2.00 FOOT OFFSETS FOR ANGLE POINTS ADJACENT TO WALLS). FRONT CORNERS WILL BE SET WITH A 1" BRASS DISK STAMPED "LS 8067" AT A 1.00 FOOT PROJECTION OF THE PROPERTY LINE ONTO THE SIDEWALK.
6. LOT DD SHALL BE GRANTED TO THE CITY OF RANCHO CORDOVA FOR PESESTRIAN AND LANDSCAPE PURPOSES.
7. A SOILS REPORT DATED AUGUST 4, 2021, WAS PREPARED FOR THIS SUBDIVISION BY WALLACE KUHL & ASSOCIATES. A COPY OF THIS REPORT ENTITLED "GEOTECHNICAL ENGINEERING REPORT, GRANTLINE 220, RANCHO CORDOVA, CALIFORNIA, WKA NO. 12590.03", IS AVAILABLE FOR PUBLIC INSPECTION AT THE OFFICE OF THE CITY OF RANCHO CORDOVA BUILDING INSPECTOR.

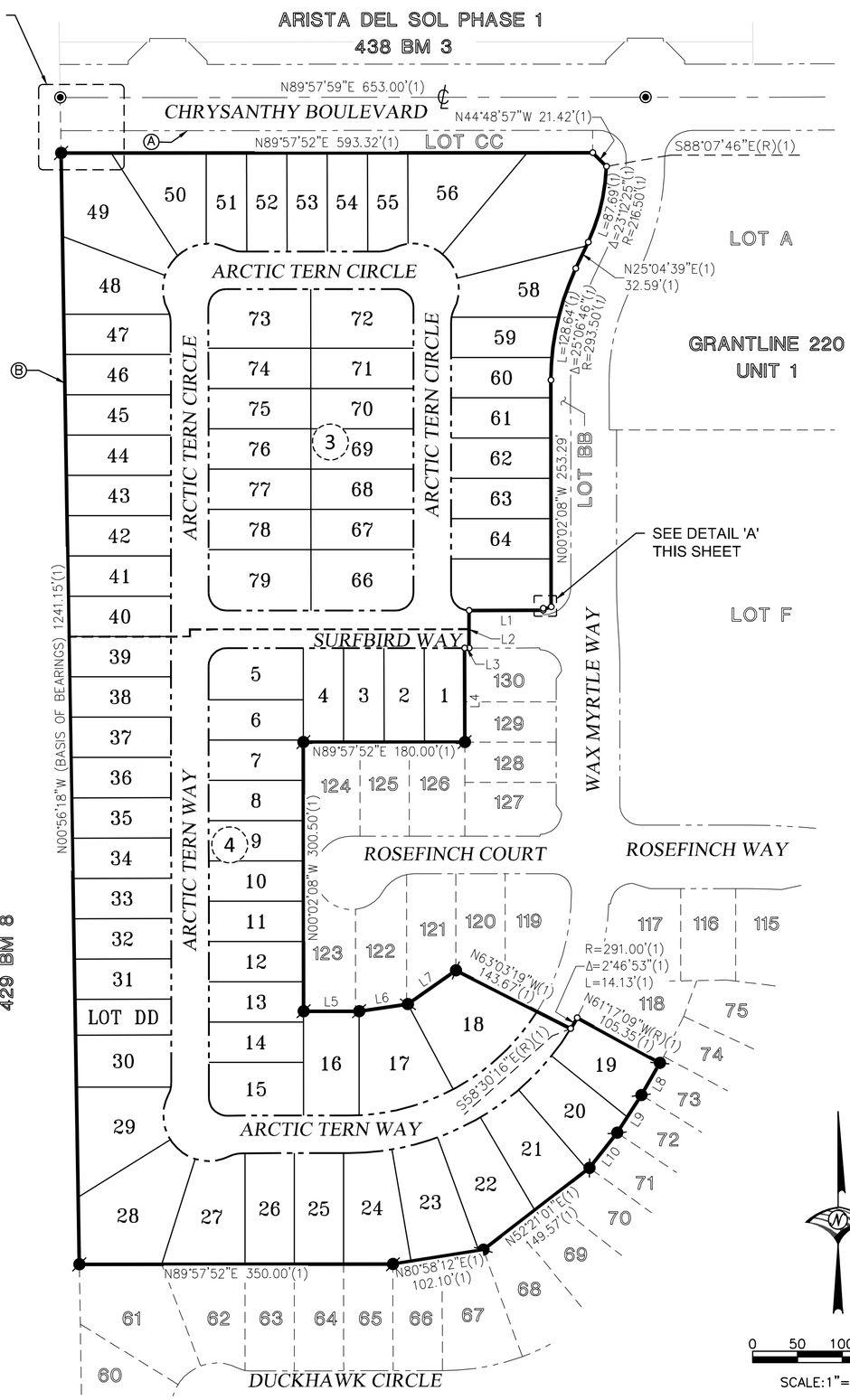
LINE TABLE – THIS SHEET ONLY			
NO.	BEARING	LENGTH	REFERENCE
L1	N89°57'52"E	82.50'	(1)
L2	N0°02'08"W	42.00'	(1)
L3	N89°57'52"E	5.00'	(1)
L4	N0°02'08"W	105.00'	(1)
L5	N89°57'52"E	62.00'	(1)
L6	N81°54'49"E	55.00'	(1)
L7	N54°44'51"E	65.54'	(1)
L8	N29°53'30"E	41.32'	(1)
L9	N32°44'57"E	49.96'	(1)
L10	N38°09'43"E	50.00'	(1)

DETAIL 'A' - SCALE: 1" = 10'



DETAIL 'B' - NOT TO SCALE





0 50 100 200

SCALE:1"= 100'

LEGEND

○	DIMENSION POINT
✦	FOUND SECTION CORNER AS NOTED
◉	FOUND 3/4" IRON PIPE WITH CAP STAMPED "LS 8067"
●	FOUND 1 1/4" GALVANIZED IRON PIPE WITH PLUG STAMPED "LS 8067"
⌖	SECTION CORNER NOT FOUND, NOTHING SET
◎	SET 3/4" IRON PIPE WITH CAP STAMPED "LS 8067"
℄	CENTERLINE
BM	BOOK OF MAPS
L=	ARC LENGTH
LE	LANDSCAPE EASEMENT
NTS	NOT TO SCALE
(OA)	OVERALL
OR	OFFICIAL RECORDS OF SACRAMENTO COUNTY
PE	PEDESTRIAN EASEMENT
PUE	PUBLIC UTILITY EASEMENT
(R)	RADIAL BEARING
SF	SQUARE FEET
(4)	SHEET NUMBER REFERENCE

EASEMENT NOTES:

Ⓐ RECIPROCAL TEMPORARY CONSTRUCTION EASEMENT AGREEMENT, ALONG THE NORTH BOUNDARY LINE OF GRANTLINE 220, PER DOC# 202104071027, HAS AN UNDEFINED DEDICATION AREA.

Ⓑ RECIPROCAL TEMPORARY CONSTRUCTION EASEMENT AGREEMENT, ALONG THE WEST BOUNDARY LINE OF GRANTLINE 220, PER DOC# 202106092105, HAS AN UNDEFINED DEDICATION AREA.

REFERENCES:

(1) 442 MAPS 13 LARGE LOT FINAL MAP OF GRANTLINE 220

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS IDENTICAL TO THE WEST LINE OF LOT 2 ON THE "LARGE LOT FINAL MAP OF GRANTLINE 220" FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13, SACRAMENTO COUNTY RECORDS. BEARING OF SAID WEST LINE BEING " N00°56'18"W ". DISTANCES ARE GROUND BASED.

FINAL MAP OF

GRANTLINE 220 UNIT 2

SUBDIVISION NO. FM-2021-004-02
BEING ALL OF LOT 2 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	30.00'	26°57'15"	14.11'
C2	30.00'	17°20'06"	9.08'
C3	30.00'	9°37'09"	5.04'
C4	51.00'	29°43'44"	26.46'
C5	30.00'	26°57'15"	14.11'
C6	30.00'	26°57'15"	14.11'
C7	51.00'	20°28'12"	18.22'
C8	30.00'	26°57'15"	14.11'
C9	30.00'	16°33'09"	8.67'
C10	30.00'	10°24'05"	5.45'
C11	24.00'	22°01'28"	9.23'

FINAL MAP OF

GRANTLINE 220 UNIT 2

SUBDIVISION NO. FM-2021-004-02
BEING ALL OF LOT 2 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
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SEE SHEET 3

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	20.00'	90°00'00"	31.42'
C2	30.00'	26°57'15"	14.11'
C3	51.00'	44°37'10"	39.72'
C4	30.00'	26°57'15"	14.11'
C5	20.00'	90°00'00"	31.42'
C6	291.00'	07°18'23"	37.11'
C7	291.00'	02°46'53"	14.13'

LARGE LOT FINAL MAP OF THE RANCH
429 BM 8

SURFBIRD WAY

ARCTIC TERN WAY

WAX MYRTLE WAY

ROSEFINCH WAY

ROSEFINCH COURT

LOT F

GRANTLINE 220
UNIT 1

LOT DD
4,283± SF
(LE/PE/PUE)

SCALE:1"= 50'

FINAL MAP OF

GRANTLINE 220 UNIT 2

SUBDIVISION NO. FM-2021-004-02
BEING ALL OF LOT 2 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

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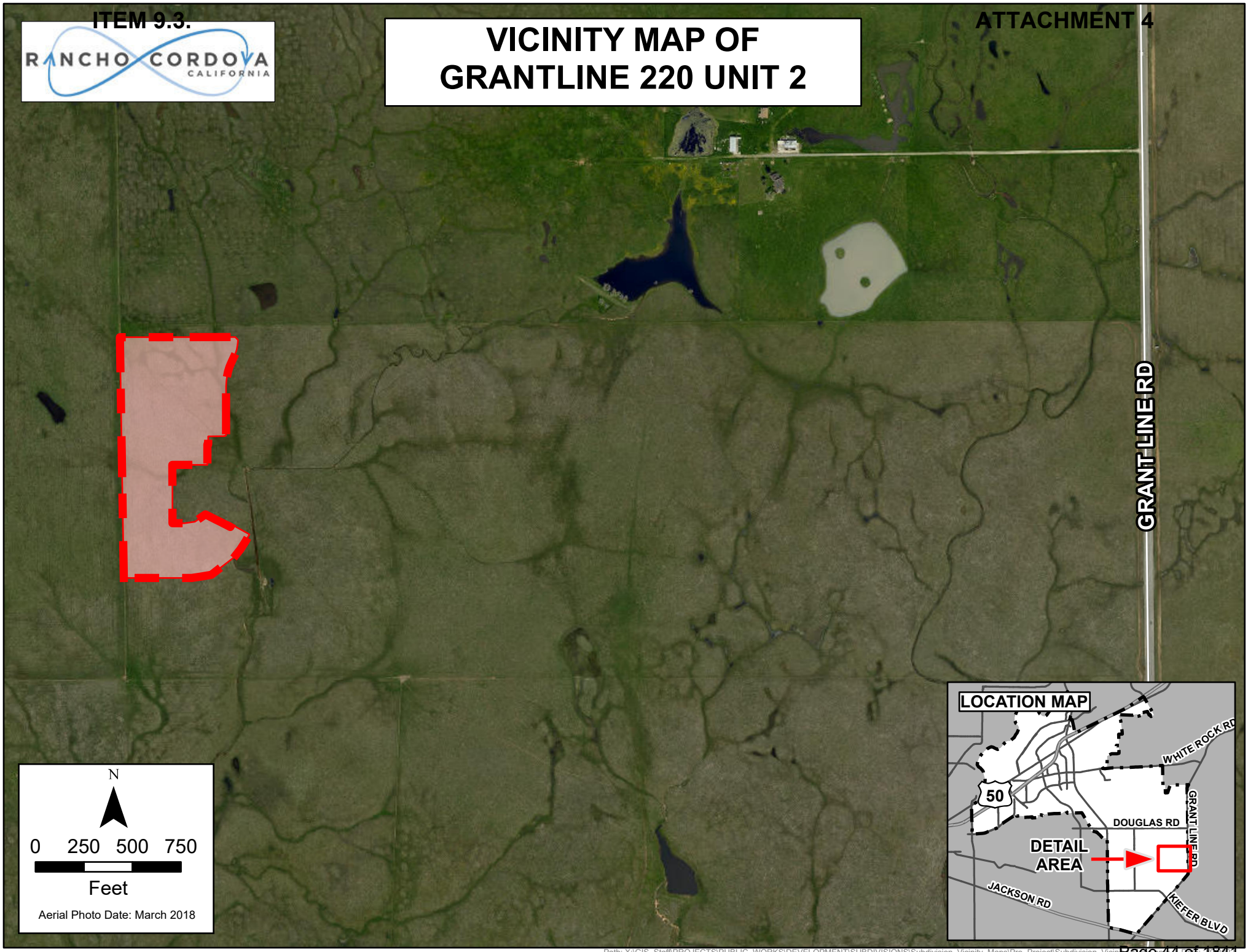
Sacramento, CA 95816 Fax 916.341.7767

SEE SHEET 2 FOR BASIS OF BEARINGS, REFERENCES, LEGEND AND NOTES

VICINITY MAP OF GRANTLINE 220 UNIT 2



Path: X:\GIS_Staff\PROJECTS\PUBLIC_WORKS\DEVELOPMENT\SUBDIVISIONS\Subdivision_Vicinity_Maps\Pro_Project\Subdivision_Vicinity_Maps.aprx Date: 2/18/22

MEMORANDUM

ITEM 9.4.

DATE: November 21, 2022

TO: Honorable Mayor and Council Members

FROM: Albert Stricker, Public Works Director
Quoc Nham, Senior Civil Engineer

SUBJECT: **A RESOLUTION APPROVING THE FINAL MAP OF GRANTLINE 220 UNIT 3, SUBDIVISION NO. FM-2021-004-03, AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE SUBDIVISION IMPROVEMENT AGREEMENT 2022-228 WITH LENNAR HOMES OF CALIFORNIA, LLC**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would approve the Final Map of Grantline 220 Unit 3 Subdivision No. FM-2020-004-03 and Authorize the City Manager to Execute Subdivision Improvement Agreement 2022-228 with Lennar Homes of California, LLC.

BACKGROUND

The map has been examined and checked for compliance with Title 22 of the City of Rancho Cordova Municipal Code and the California Subdivision Map Act. The City Council approved the Tentative Subdivision Map on June 7, 2021. A copy of the final map, Attachment 3, and copy of the vicinity map, Attachment 4, are included with this letter. The developer has chosen a theme of bird species for neighborhood roadway names.

Roads are offered for dedication with this subdivision. Lennar Homes of California, LLC has provided a performance and labor and material bond guaranteeing the construction of the public improvements. Wood Rodgers has waived the requirement for a bond to guarantee payment for setting the survey monuments with the subdivision. The soil report requirement has been satisfied by Wallace Kuhl & Associates dated August 4, 2021.

There are no delinquent taxes against the property and the Tax Collector has so certified. The 2022/2023 estimated taxes have been secured with the Sacramento County Tax Collector.

FISCAL IMPACT AND FUNDING SOURCE

There is no fiscal impact to the City.

ATTACHMENT(S)

1. Resolution
2. Contract No. 2022-228
3. Final Map
4. Vicinity Map

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, APPROVING THE FINAL MAP OF GRANTLINE 220 UNIT 3 SUBDIVISION NO. FM-2021-004-03, AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE SUBDIVISION IMPROVEMENT AGREEMENT 2022-228 WITH LENNAR HOMES OF CALIFORNIA, LLC

WHEREAS, the City Council approved the Tentative Subdivision Map on June 7, 2021, per Resolution No. 91-2021; and

WHEREAS, the map is in substantial compliance with the approved tentative map; and

WHEREAS, the conditions of approval have been complied with; and

WHEREAS, the map complies with Title 22 of the City of Rancho Cordova municipal code and the California Subdivision Map Act; and

WHEREAS, the approval of final maps is exempt from review under the California Environmental Quality Act (CEQA) pursuant to CEQA Regulation Section 15268(b)(3) as a ministerial approval; and

WHEREAS, the City desires to enter into a subdivision improvement agreement with the developer to ensure necessary public improvements are completed and secured with a bond.

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does approve the Final Map of Grantline 220 Unit 3 Subdivision No. FM-2021-004-03 and does authorize the City Manager to execute Subdivision Improvement Agreement Contract No. 2022-228 with Lennar Homes of California, LLC in a form approved by the City Attorney.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 21st day of November 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

_____
Donald Terry, Mayor

_____
Stacy Leitner, CMC
City Clerk

SUBDIVISION IMPROVEMENT AGREEMENT

GRANTLINE 220 UNIT 3 FM-2021-004-03

THIS SUBDIVISION IMPROVEMENT AGREEMENT (hereinafter, “Agreement”) entered into this _____ day of _____, 20__, by and between the City of Rancho Cordova, (hereinafter “City"), a California municipal corporation, and Lennar Homes of California, LLC, a California limited liability company (hereinafter "Principal").

RECITALS

WHEREAS, Section 66462 of the Government Code provides that if the work of improvement required therein is not completed prior to the acceptance of a final subdivision map, the owner of the subdivision may enter into an agreement with the City to perform the work of improvement as required by said sections in consideration of the acceptance of said final subdivision map by the City; and

WHEREAS, Section 66499 of the Government Code requires that said agreement be secured by a surety bond or by an instrument of credit issued by a financial institution subject to regulation by the State or federal governments or by a cash deposit; and

WHEREAS, Section 66499.3 establishes the types and amount of security to guarantee the performance of any such improvement agreement; and

WHEREAS, City and Principal desire to enter into an improvement agreement as authorized by the Subdivision Map Act under the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the mutual promises, conditions and covenants hereinafter set forth, City and Principal agree as follows:

1. Incorporation of Recitals. The foregoing recitals are hereby incorporated by reference.

2. Findings and Conditions of Subdivision Map. Principal recognizes that approval of its subdivision was subject to the findings and conditions attached to such approval and hereby acknowledges and agrees to be bound by such findings and conditions.

3. City Approval of Subdivision Map. City agrees to approve the final map of the subdivision presented to it by Principal and designated Grantline 220 Unit 3, FM-2021-004-03 and to accept on behalf of the public all lands, rights of way and easements therein offered in dedication, in accordance with the conditions hereinafter set forth.

4. Completion of Improvements. In consideration of such approval, Principal

agrees to complete the work of improvement required for said subdivision in accordance with the requirements of the Rancho Cordova Municipal Code and such standard specifications created by applicable City ordinances or resolutions which are in effect at the time of the installation of said improvements. The work required may lie within or outside the subdivision and must be completed within **24** months of the date of this Agreement.

5. Payment For Services. Principal further agrees to promptly pay, when due, all costs for plan checking, inspection services and material testing performed by City pursuant to the requirements of Sections 12.03.210 et. seq. of the Rancho Cordova Municipal Code.

6. Community Facilities Renovation Fee. Principal acknowledges that under the terms of the Development Agreement by and between The City of Rancho Cordova and Grantline & Chrystanthy 220 Investors, LLC Relative to the Suncreek Project Recorded as Sacramento County Recorder # **20140121 page 1146.** Principal is obligated to pay the City a fee in Section 6 of the above Development Agreement per single family lot within the Final Map ("Community Facilities Renovation Fee"). Principal acknowledges and agrees that such fee will be paid prior to the issuance of a building permit for the respective lot.

7. Acceptance of Improvements. Upon satisfactory completion of all public improvements in accordance with standard specifications created by City ordinances or resolutions which are in effect at the time of the installation of said improvements, City agrees to accept for maintenance the work of improvement within the dedicated parcels shown on said final subdivision map, and any off site easements granted, subject to the provisions of paragraph 9 hereof. Acceptance will be postponed until such time the City determines a public purpose exists. Public Purpose is defined as existence of habitable structures within the subdivision.

8. Notice of Commencement of Work. Principal shall notify the City Engineer in writing of the commencement of the work of improvements.

9. Correction of Defects. Principal agrees to remedy any defects in the improvement arising from faulty or defective construction of said improvements occurring within twelve months after acceptance thereof by City.

10. Indemnity. Principal shall indemnify and hold harmless with counsel selected by the City, the City of Rancho Cordova, its agents, officers, consultants, and employees (“City”) from any and all loss, damage or liability arising out of or resulting from Principal's performance or non-performance of his duties and obligations under this Agreement, or from the negligent act or omission of himself, his agents, servants and employees. Principal shall, at his own cost

and expense, defend any and all actions, suits, or legal proceedings arising out of or resulting from the performance or nonperformance of this Agreement, that may be brought or instituted against the City, its officers and employees, on any such claim or demand, and pay or satisfy any judgment that may be rendered against the City in any such action, suit or legal proceedings, or result thereof, regardless whether caused in part by a party indemnified hereunder.

11. Extension of Completion Date. If the construction of the work or improvement should be delayed without fault of Principal, the time for completion thereof may be extended by City for such period of time as City may deem reasonable.

12. Improvement Security. (a) Principal shall obtain and furnish to City an improvement security consisting of a surety bond in favor of City, issued by a corporate surety authorized to do business in the State of California, and in form approved by City, securing the faithful performance by Principal of the work of improvement required, and also securing the payment of the costs and interest, if any, due under Sections 12.030.210 et seq. of the Rancho Cordova Municipal Code, as provided in Paragraph 5 herein and an additional bond issued by a corporate surety authorized to do business in the State of California, in the amount of not less than 50 percent of the total estimated cost of the improvement, securing payment to contractor, his subcontractors, and to persons renting equipment or furnishing labor or materials for the improvement.

(b) In lieu of said corporate surety bonds, Principal may furnish an improvement security consisting of a letter of credit, certificate of deposit, or similar instrument of credit, in form satisfactory to City, issued by a financial institution subject to regulation by the State or Federal government, pledging that the funds necessary to meet the performance required herein are on deposit, and guaranteed for payment on demand. Said letter of credit, certificate of deposit, or similar instrument of credit shall provide that the funds designated therein shall become trust funds for the purposes set forth in said instrument.

(c) The failure of Principal to commence the required work of improvements, or to complete the same within the time required after commencement thereof, shall entitle City to the full payment of the security, or so much thereof as may be necessary to complete the required work of improvement. The amount of the surety bond for faithful performance shall be in the sum of **$9,726,000**. The amount of the surety bond for the payment of the claims of the contractor, his subcontractors, and to persons renting equipment or furnishing labor or materials for the improvement shall be at least 50 percent of the above amount. The letter of credit,

certificate of deposit or similar instrument of credit, or cash deposit for faithful performance, shall be in the above amount plus an additional 50 percent for the purposes set forth herein.

13. Improvement Security As Condition Precedent. The furnishing of the improvement security by Principal as required by paragraph 12 hereof shall be a condition precedent to acceptance by City of the above described real property and the performance by the City of the covenants herein on its part to be performed.

14. Inspection of Work In Progress. (a) Principal may request The City Engineer to inspect the work as it progresses. If the work performed is found to be in accordance with the requirements of City, it may be accepted as it progresses and a partial refund of the cash deposit, or a release pro tanto of the faithful performance bond, letter of credit, certificate of deposit or similar instrument of credit shall be made in a sum in the same ratio to the total deposit as the work accepted bears to the total work to be done. No refund in excess of 85 percent of the total amount of the improvement security for faithful performance shall be made until all the work has been completed and accepted.

(b) The determination of the Administrator of Public Works of City as to the amount of work done, and the amount of refund or partial release pro tanto, shall be final and conclusive. When the work of improvement is accepted, 10 percent of the improvement security shall be retained to guarantee faithful performance of the provisions of paragraph 9 of this Agreement.

(c) Improvement security given to secure payment to contractor, his subcontractors and to persons renting equipment or furnishing labor or materials for the work of improvement may, six months after completion and acceptance of the work, be reduced to an amount not less than the total of all claims on which an action has been filed, and notice thereof given in writing to City, and if there are no actions filed, such improvement security may be released in full.

15. Execution By Real Party In Interest. Where title to the subdivision property is held by the record owner thereof under a holding Agreement, this Agreement and the bond given pursuant thereto must be executed by the real party or parties in interest.

16. Waiver of Civil Code Section 2819. Any extension of time hereunder shall not operate to release the surety on the bond filed pursuant to this Agreement. In this connection the surety waives the provisions of Section 2819 of the Civil Code of the State of California.

17. City Construction of Improvements. In the event that all or any portion of the works of improvement contemplated herein are proposed to be constructed by street improvement proceedings under the control of City, the undertaking of such proceedings shall in

no way relieve Principal of any duties under this Agreement, except where all of the works of improvement that are required under this Agreement have in fact been constructed and accepted by City.

18. Interest. Interest shall accrue at the highest rate permitted by law on all sums from the date payment is due under the terms of this Agreement and the sum due is certain or reasonably capable of being made certain.

19. Attorneys' Fees. In the event that it is necessary for the City to enforce the obligations secured by the improvement security furnished pursuant to Paragraph 12 hereof, the City shall be entitled to recover its costs and reasonable expenses and fees, including reasonable attorneys' fees, as provided for in Government Code Section 66499.4.

20. Amendments. This Agreement may be modified or amended, or any of its provisions waived, only by a subsequent written agreement executed by the parties hereto.

21. Entire Agreement. This Agreement and any attachments hereto constitute the sole, final, complete, exclusive and integrated expression and statement of the terms and conditions of this Agreement among the parties hereto concerning the subject matter addressed herein, and supercedes all prior negotiations, representations or agreements, oral or written, that may be related to the subject matter of this Agreement.

22. Construction and Interpretation. It is agreed and acknowledged by the Principal that the provisions of this Agreement have been arrived at through negotiation, and that the Principal has had a full and fair opportunity to revise the provisions of this Agreement and to have such provisions reviewed by legal counsel. Therefore, the normal rule of construction that any ambiguities are to be resolved against the drafting party shall not apply in construing or interpreting this Agreement.

23. Successors and Assigns. This Agreement shall bind and inure to the benefit of the respective successors and assigns of the parties hereto.

24. Time. Time is of the essence in the performance of each and every term of this Agreement.

SIGNATURE PAGE FOLLOWING

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first set forth above, which date shall be considered by the Parties to be the effective date of this Agreement.

CITY OF RANCHO CORDOVA,
California Municipal Corporation

_____
Cyrus Abhar, City Manager

Date: _____

LENNAR HOMES OF CALIFORNIA, LLC.,
a California limited liability company
(as successor-in-interest by conversion to Lennar Homes of California, Inc., a California corporation)

_____
Larry Gualco, Sr. Vice President

Date: _____

ATTEST:

_____
Stacy Leitner, CMC, City Clerk

APPROVED AS TO FORM: (ADD SIGNATURE BLOCK IF ANY CHANGES TO CONTRACT)

_____
Adam U. Lindgren, City Attorney

Date: _____

OWNER'S STATEMENT

THE UNDERSIGNED HEREBY CONSENT TO THE PREPARATION AND RECORDING OF THIS FINAL MAP OF GRANTLINE 220 UNIT 3.

THE REAL PROPERTY DESCRIBED BELOW IS DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES:

THE UNDERSIGNED HEREBY OFFERS FOR DEDICATION AND DOES HEREBY DEDICATE TO ANY AND ALL PUBLIC USES, THE PUBLIC ROADS DESIGNATED HEREON AS ROSEFINCH WAY, GREENSHANK WAY, WHITE IBIS WAY, SNOWY OWL WAY, PATAGONIAN WAY, TOUCAN CIRCLE, CROSSBILL WAY, LORIKEET WAY AND GREY OWL WAY, AS SHOWN HEREON, AND DOES HEREBY DEDICATE TO SPECIFIC PURPOSES THE FOLLOWING:

1. EASEMENT FOR PLANTING AND MAINTAINING TREES, ELECTROLIERS, TRAFFIC CONTROL DEVICES, WATER AND GAS PIPES, AND UNDERGROUND WIRES AND CONDUITS FOR ELECTRIC, TELEVISION AND TELEPHONE SERVICES, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO, ON, OVER, UNDER AND ACROSS LOTS H, I, J, R, S, FF AND THOSE STRIPS OF LAND 12.50' IN WIDTH, LYING CONTIGUOUS TO THE PUBLIC STREETS SHOWN HEREON AND DESIGNATED "PUBLIC UTILITY EASEMENT" (PUE).

2. EASEMENTS FOR LANDSCAPING AND ALL APPURTENANCES PERTAINING THERETO LYING ON, OVER AND ACROSS LOTS H, I, J, R, S AND FF, SHOWN HEREON AND DESIGNATED "LANDSCAPING EASEMENT" (LE).

3. RIGHT OF WAYS AND EASEMENTS FOR THE INSTALLATION AND MAINTENANCE OF A PEDESTRIAN WALKWAY, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO ON, OVER, UNDER AND ACROSS LOTS H, I, J, R, S AND FF, SHOWN HEREON AND DESIGNATED "PEDESTRIAN EASEMENT" (PE).

4. AN EASEMENT FOR CONSTRUCTING AND MAINTAINING CENTRALIZED MAIL DELIVERY BOXES, PEDESTALS, AND SLABS, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO INCLUDING PEDESTRIAN ACCESS FOR DELIVERY AND RECEIPT OF MAIL ON, OVER, UNDER AND ACROSS STRIPS OF LAND FIVE FEET IN WIDTH LYING CONTIGUOUS TO THE PUBLIC STREETS SHOWN HEREON.

LENNAR HOMES OF CALIFORNIA, LLC
A CALIFORNIA LIMITED LIABILITY COMPANY
(AS SUCCESSOR-IN-INTEREST BY CONVERSION TO
LENNAR HOMES OF CALIFORNIA, INC., A CALIFORNIA CORPORATION)

BY: _____

NAME: _____

TITLE: _____

NOTARY'S ACKNOWLEDGMENT

A NOTARY PUBLIC OR OTHER OFFICER COMPLETING THIS CERTIFICATE VERIFIES ONLY THE IDENTITY OF THE INDIVIDUAL WHO SIGNED THE DOCUMENT TO WHICH THIS CERTIFICATE IS ATTACHED, AND NOT THE TRUTHFULNESS, ACCURACY, OR VALIDITY OF THAT DOCUMENT.

STATE OF CALIFORNIA)
COUNTY OF _____) SS

ON _____ DAY OF _____, 2022 BEFORE ME, _____ _____, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, PERSONALLY APPEARED _____ _____ WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND AND OFFICIAL SEAL: _____

PRINTED NAME: _____

MY PRINCIPAL PLACE OF BUSINESS IS IN THE COUNTY OF: _____

MY COMMISSION EXPIRES: _____

MY COMMISSION No.: _____

SURVEYOR'S STATEMENT

THIS FINAL MAP OF GRANTLINE 220 UNIT 3 WAS PREPARED BY ME OR UNDER MY DIRECTION AND IS BASED UPON A FIELD SURVEY IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AND LOCAL ORDINANCE AT THE REQUEST OF LENNAR HOMES OF CALIFORNIA, LLC, IN OCTOBER, 2021. I HEREBY STATE THAT ALL THE MONUMENTS SHOWN HEREON ARE OF THE CHARACTER AND OCCUPY THE POSITIONS INDICATED OR THAT THEY WILL BE SET IN THOSE POSITIONS BEFORE NOVEMBER 30, 2024 AND THAT THE MONUMENTS ARE, OR WILL BE, SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

WOOD RODGERS, INC.

PROFESSIONAL LAND SURVEYOR
ANDREW P. TAPLEY
9554
STATE OF CALIFORNIA

_____
ANDREW P. TAPLEY
P.L.S. 9554

_____
DATE

CITY ENGINEER'S STATEMENT

I HEREBY STATE THAT I HAVE EXAMINED THIS FINAL MAP OF GRANTLINE 220 UNIT 3 AND FIND IT TO BE SUBSTANTIALLY THE SAME AS THE TENTATIVE MAP APPROVED BY THE CITY OF RANCHO CORDOVA, AND ANY APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF THE SUBDIVISION MAP ACT AND ALL APPLICABLE CITY ORDINANCES HAVE BEEN COMPLIED WITH.

_____
CITY ENGINEER, ALBERT STRICKER, R.C.E. 64057

DATED: _____

REGISTERED PROFESSIONAL ENGINEER
ALBERT STRICKER
No. 64057
CIVIL
STATE OF CALIFORNIA

CITY SURVEYOR'S STATEMENT

I HEREBY STATE THAT I AM SATISFIED THAT THIS FINAL MAP OF GRANTLINE 220 UNIT 3 IS TECHNICALLY CORRECT.

_____
LAND SURVEYOR, CYRUS E. ABHAR, P.L.S. 7723

DATED: _____

LICENSED LAND SURVEYOR
CYRUS E. ABHAR
No. 7723
STATE OF CALIFORNIA

CITY CLERK'S STATEMENT

I HEREBY STATE THAT THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA HAS APPROVED THIS FINAL MAP OF GRANTLINE 220 UNIT 3 AND HAS ACCEPTED ON BEHALF OF THE PUBLIC ALL EASEMENTS AND RIGHTS-OF-WAY SHOWN HEREON SUBJECT TO COMPLETION OF THE IMPROVEMENTS.

BY: _____
CITY CLERK
CITY OF RANCHO CORDOVA

DATED: _____

RECORDER'S STATEMENT

FILED THIS_____DAY OF _____, 2022, AT _____ ___.M. IN BOOK _____ OF MAPS, AT PAGE _____ AT THE REQUEST OF WOOD RODGERS, INC. TITLE TO THE LAND INCLUDED IN THIS FINAL MAP BEING VESTED AS PER CERTIFICATE NO. _____ ON FILE IN THIS OFFICE.

DONNA ALLRED, COUNTY RECORDER
COUNTY OF SACRAMENTO

DOCUMENT NO.: _____

BY: _____
DEPUTY RECORDER

FEE: $ _____

FINAL MAP OF

GRANTLINE 220 UNIT 3

SUBDIVISION NO. FM-2021-004-03
BEING ALL OF LOTS 3 & 11 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

Sheet 1 of 9

1258.023

NOTES

1. ALL CURVES DIMENSIONED WITH RADIUS, DELTA, AND ARC LENGTH.
2. ALL DISTANCES SHOWN HEREON ARE EXPRESSED IN FEET AND DECIMALS THEREOF.
3. DUE TO ROUNDING, THE SUM OF THE INDIVIDUAL DIMENSIONS MAY NOT EQUAL THE OVERALL DIMENSION.
4. TOTAL AREA FOR THIS "GRANTLINE 220 UNIT 3" FINAL MAP IS 27.71± ACRES, CONSISTING OF 128 RESIDENTIAL LOTS, 6 LANDSCAPE LOTS AND 1 LANDSCAPE/PEDESTRIAN ACCESS LOT.
5. ALL LOTS BEING CREATED BY THIS MAP INCLUDE FEE TITLE TO THE CENTERLINE OF THE COURT AND WAYS SHOWN HEREON, EXCEPT WHERE THE PUBLIC ROAD EASEMENT LINE IS ALSO THE COMMON LINE OF THE SUBDIVISION BOUNDARY, THEN THE FEE TITLE IS TO THE SUBDIVISION BOUNDARY.
6. A 5/8" REBAR CAPPED "LS 9554" WILL BE SET AT ALL REAR LOT CORNERS, ALONG WITH ALL LOT LINE ANGLE POINTS OR AT A 2.00 FOOT PROJECTION ALONG LOT LINES ADJACENT TO WALLS (2.00 FOOT BY 2.00 FOOT OFFSETS FOR ANGLE POINTS ADJACENT TO WALLS). FRONT CORNERS WILL BE SET WITH A 1" BRASS DISK STAMPED "LS 9554" AT A 1.00 FOOT PROJECTION OF THE PROPERTY LINE ONTO THE SIDEWALK.
7. LOT FF SHALL BE GRANTED TO THE CITY OF RANCHO CORDOVA FOR PEDESTRIAN AND LANDSCAPE PURPOSES.
8. LOTS H, I, J, K, R, AND S SHALL BE GRANTED TO THE CITY OF RANCHO CORDOVA FOR LANDSCAPE PURPOSES.
9. A SOILS REPORT DATED AUGUST 4, 2021, WAS PREPARED FOR THIS SUBDIVISION BY WALLACE KUHL & ASSOCIATES. A COPY OF THIS REPORT ENTITLED "GEOTECHNICAL ENGINEERING REPORT, GRANTLINE 220, RANCHO CORDOVA, CALIFORNIA, WKA NO. 12590.03", IS AVAILABLE FOR PUBLIC INSPECTION AT THE OFFICE OF THE CITY OF RANCHO CORDOVA BUILDING INSPECTOR.

REFERENCES:

(1)	442 MAPS 13	LARGE LOT FINAL MAP OF GRANTLINE 220
(2)	___ MAPS __	GRANTLINE 220 UNIT 1 FINAL MAP

LEGEND

○	DIMENSION POINT
◉	FOUND 3/4" IRON PIPE WITH CAP STAMPED "LS 9554"
◎	SET 3/4" IRON PIPE WITH CAP STAMPED "LS 9554"
℄	CENTERLINE
BM	BOOK OF MAPS
L=	ARC LENGTH
LE	LANDSCAPE EASEMENT
NTS	NOT TO SCALE
(OA)	OVERALL
OR	OFFICIAL RECORDS OF SACRAMENTO COUNTY
PE	PEDESTRIAN EASEMENT
PUE	PUBLIC UTILITY EASEMENT
(R)	RADIAL BEARING
SF	SQUARE FEET
(6)	SHEET NUMBER REFERENCE

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS IDENTICAL TO THE SOUTH LINE OF LOT 3 ON THE "LARGE LOT FINAL MAP OF GRANTLINE 220" FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13, SACRAMENTO COUNTY RECORDS. BEARING OF SAID WEST LINE BEING " N89°49'23"E ". DISTANCES ARE GROUND BASED. COMBINED GRID-TO-GROUND FACTOR = 1.0000470000.

FINAL MAP OF

GRANTLINE 220 UNIT 3

SUBDIVISION NO. FM-2021-004-03
BEING ALL OF LOTS 3 & 11 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

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Sacramento, CA 95816 Fax 916.341.7767

BOUNDARY SHEET

SEE SHEET 9

DETAIL 'A' - SCALE: 1" = 40'-0"

DETAIL 'B' - SCALE: 1" = 20'-0"

DETAIL 'C' - SCALE: 1" = 20'-0"

DETAIL 'D' - SCALE: 1" = 20'-0"

LOT R

LOT S

LOT T

LOT U

LOT V

LOT W

LOT X

LOT FF

LOT C

LOT D

LOT 6

LOT 4

LOT 8

REMAINDER

LOT K

LOT J

LOT I

LOT H

LOT 10

GRANTLINE 220
LARGE LOT FINAL MAP
442 BM 13

GRANTLINE 220
UNIT 1 FM

ROSEFINCH WAY

CROSSBILL WAY

TOUCAN CIRCLE

LORIKEET WAY

GREY OWL WAY

GREY OWL COURT

WHITE IBIS WAY

SNOWY OWL WAY

PATAGONIAN WAY

GREENSHANK WAY

AMERICANOS BOULEVARD

25' PUE PER (1)

12.5' PUE PER (1)

CERTIFICATE OF COMPLIANCE
DOC# 19800104-1284

19 RS 11

LINE TABLE – THIS SHEET ONLY			
NO.	BEARING	LENGTH	REFERENCE
L1	N14°10'17"E	4.49'	(1)
L2	N75°49'43"W	2.05'	(1)
L3	N89°57'52"E	63.00'	(1)
L4	N73°20'10"W	20.88'	(1)
L5	N0°02'08"W	7.00'	(1)
L6	N89°57'52"E	109.25'	(1)

LINE TABLE – THIS SHEET ONLY			
NO.	BEARING	LENGTH	REFERENCE
L7	N0°02'08"W	71.29'	(1)
L8	N89°57'52"E	107.25'	(1)
L9	N73°15'55"E	20.88'	(1)
L10	N89°57'52"E	64.00'	(1)

CURVE TABLE – THIS SHEET ONLY				
NO.	RADIUS	DELTA	LENGTH	REFERENCE
C1	24.00'	24°44'44"	10.37'	(1)
C2	225.00'	0°35'25"	2.32'	(1)
C3	24.00'	90°00'00"	37.70'	(1)
C4	24.00'	22°01'28"	9.23'	(1)
C5	24.00'	22°01'28"	9.23'	(1)
C6	24.00'	90°00'00"	37.70'	(1)
C7	45.00'	61°02'21"	47.94'	(1)

SCALE:1"= 120'

FINAL MAP OF

GRANTLINE 220 UNIT 3

SUBDIVISION NO. FM-2021-004-03
BEING ALL OF LOTS 3 & 11 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

WOOD RODGERS
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Sacramento, CA 95816 Fax 916.341.7767

SEE SHEET 2 FOR BASIS OF BEARINGS, REFERENCES, NOTES & LEGEND.

GRANTLINE 220
UNIT 1 FM

GRANTLINE 220
LARGE LOT FINAL MAP
442 BM 13

AMERICANOS BOULEVARD

ROSEFINCH WAY

GREENSHANK WAY

WHITE IBIS WAY

LOT 5

LOT T

LOT C

LOT R (PE/LE/PUE) 2,894± SF

LOT S (PE/LE/PUE) 2,980± SF

1 7,829± SF
2 6,181± SF
3 5,891± SF
4 5,263± SF
5 5,082± SF
6 5,082± SF
7 5,082± SF
8
21
22 4,831± SF
23 4,868± SF
24 5,081± SF
25 5,249± SF
26 5,458± SF
27 5,744± SF
28 7,147± SF
29 4,765± SF
30 4,748± SF
31 6,341± SF
32 5,848± SF
33 4,725± SF
34 4,725± SF
35 4,725± SF
36 5,334± SF
37 5,747± SF
38
80
81
99
100
101

SEE DETAIL 'A' THIS SHEET

SEE DETAIL 'B' THIS SHEET

SEE DETAIL 'C' THIS SHEET

SEE SHEET 5

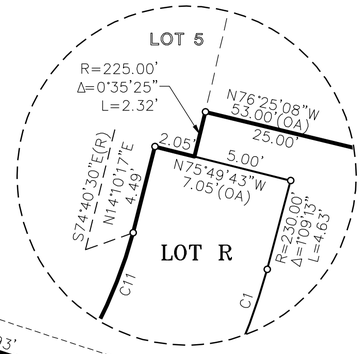
SEE SHEET 6

SEE SHEET 7

12.5' PUE (1)

12.5' PUE

DETAIL 'A' - SCALE: 1"=1'-5"

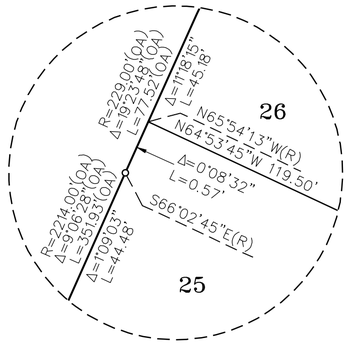


CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	31.00'	92°43'16"	50.17'
C2	23.00'	87°26'22"	35.10'
C3	24.00'	81°46'05"	34.25'
C4	24.00'	74°57'56"	31.40'
C5	229.00'	2°42'22"	12.80'
C6	2172.00'	0°40'36"	25.65'
C7	271.00'	3°59'58"	18.92'
C8	229.00'	5°50'48"	23.37'
C9	31.00'	94°01'23"	50.87'
C10	271.00'	6°00'33"	28.42'
C11	24.00'	24°44'44"	10.37'
C12	250.00'	4°27'53"	19.48'

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N63°46'56"E	14.70'
L2	N18°02'45"E	22.00'
L3	N18°02'45"E	22.00'
L4	N71°57'15"W	2.00'
L5	N88°45'21"E	17.41'
L6	N52°39'50"W	16.70'

DETAIL 'B' - SCALE: 1"=1'-5"

DETAIL 'C' - SCALE: 1"=1'-0"



0 20 40 80
SCALE:1"= 40'

FINAL MAP OF
GRANTLINE 220 UNIT 3
SUBDIVISION NO. FM-2021-004-03
BEING ALL OF LOTS 3 & 11 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

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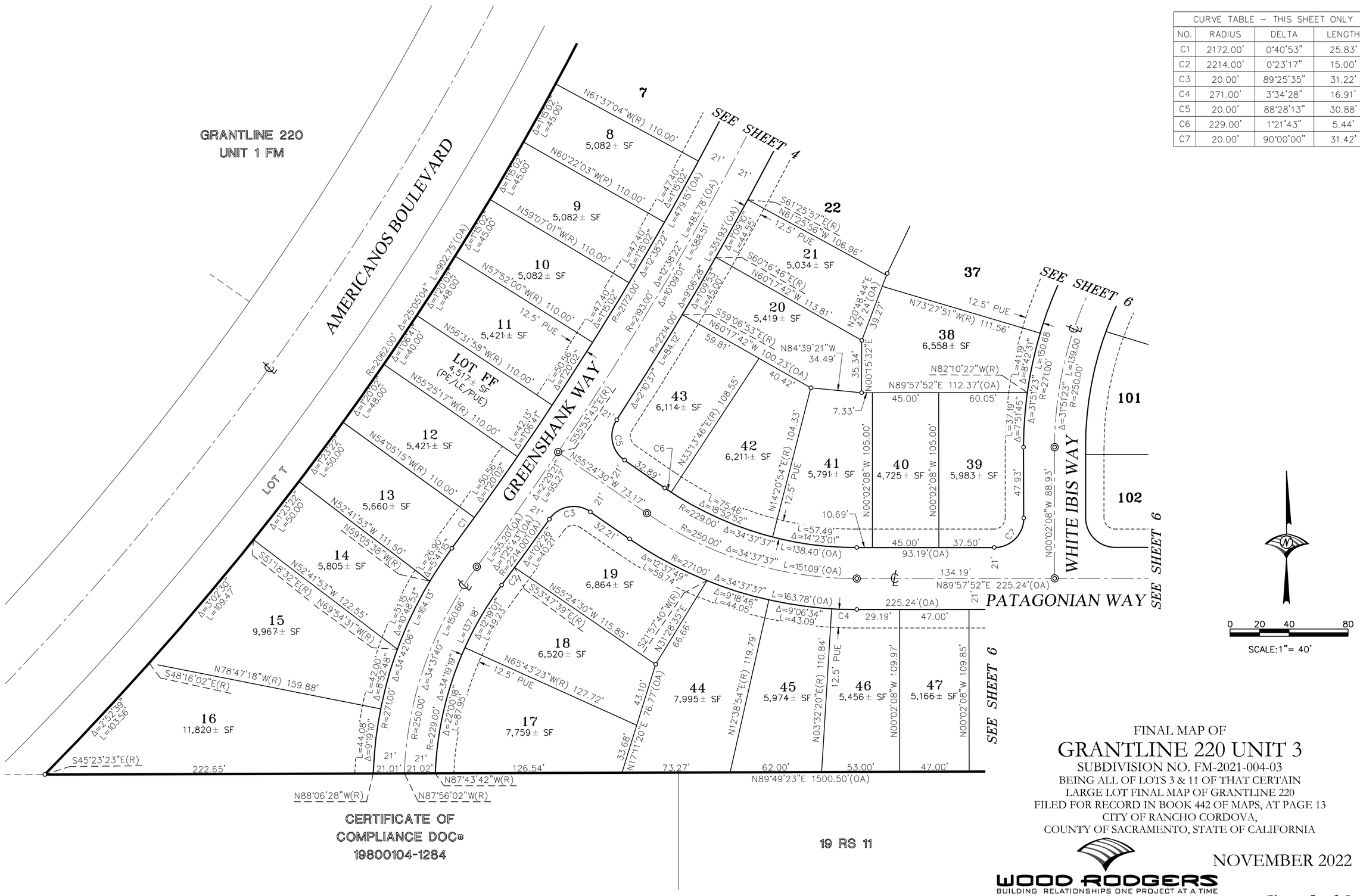
SEE SHEET 2 FOR BASIS OF BEARINGS, REFERENCES, NOTES & LEGEND.

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	2172.00'	0°40'53"	25.83'
C2	2214.00'	0°23'17"	15.00'
C3	20.00'	89°25'35"	31.22'
C4	271.00'	3°34'28"	16.91'
C5	20.00'	88°28'13"	30.88'
C6	229.00'	1°21'43"	5.44'
C7	20.00'	90°00'00"	31.42'



FINAL MAP OF

GRANTLINE 220 UNIT 3

SUBDIVISION NO. FM-2021-004-03

BEING ALL OF LOTS 3 & 11 OF THAT CERTAIN LARGE LOT FINAL MAP OF GRANTLINE 220 FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13 CITY OF RANCHO CORDOVA, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

CERTIFICATE OF COMPLIANCE DOC# 19800104-1284

19 RS 11

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SEE SHEET 2 FOR BASIS OF BEARINGS, REFERENCES, NOTES & LEGEND.

SEE SHEET 7

SEE SHEET 7

SNOWY OWL WAY

WHITE IBIS WAY

PATAGONIAN WAY

SEE SHEET 5

LOT 4 - GRANTLINE 220 LLFM
442 BM 13

SCALE:1"= 40'

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N58°10'44"W	2.38'

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	979.00'	1°36'03"	27.35'
C2	1021.00'	1°36'03"	28.53'
C3	30.00'	26°57'15"	14.11'
C4	51.00'	37°20'54"	33.24'
C5	51.00'	34°39'56"	30.86'
C6	51.00'	27°44'30"	24.69'
C7	30.00'	26°57'15"	14.11'
C8	20.00'	90°00'00"	31.42'
C9	20.00'	90°00'00"	31.42'
C10	1021.00'	1°36'03"	28.53'
C11	979.00'	1°36'03"	27.35'

19 RS 11

FINAL MAP OF

GRANTLINE 220 UNIT 3

SUBDIVISION NO. FM-2021-004-03
BEING ALL OF LOTS 3 & 11 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
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1258.023

SEE SHEET 2 FOR BASIS OF BEARINGS, REFERENCES, NOTES & LEGEND.

LOT C
GRANTLINE 220 LLFM
442 BM 13

LOT D
GRANTLINE 220 LLFM
442 BM 13

LOT 4
GRANTLINE 220 LLFM
442 BM 13

ROSEFINCH WAY

SNOWY OWL WAY

WHITE IBIS WAY

PATAGONIAN WAY

TOUCAN CIRCLE

SEE SHEET 4

SEE SHEET 8

SEE SHEET 5

SEE SHEET 6

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N58°05'11"W	20.73'
L2	N71°57'15"W	2.00'
L3	N18°02'45"E	23.88'
L4	N58°10'44"W	2.38'
L5	N89°57'52"E	2.00'
L6	N71°31'47"E	18.97'
L7	N89°57'52"E	2.00'
L8	N73°20'10"W	20.88'
L9	N73°15'55"E	20.88'
L10	N89°57'52"E	2.00'

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	24.00'	88°36'30"	37.12'
C2	20.00'	90°00'00"	31.42'
C3	24.00'	90°00'00"	37.70'
C4	24.00'	90°00'00"	37.70'
C5	24.00'	90°00'00"	37.70'

DETAIL 'A' - SCALE: 1"=1'-5"

SCALE:1"= 40'

FINAL MAP OF
GRANTLINE 220 UNIT 3
SUBDIVISION NO. FM-2021-004-03
BEING ALL OF LOTS 3 & 11 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
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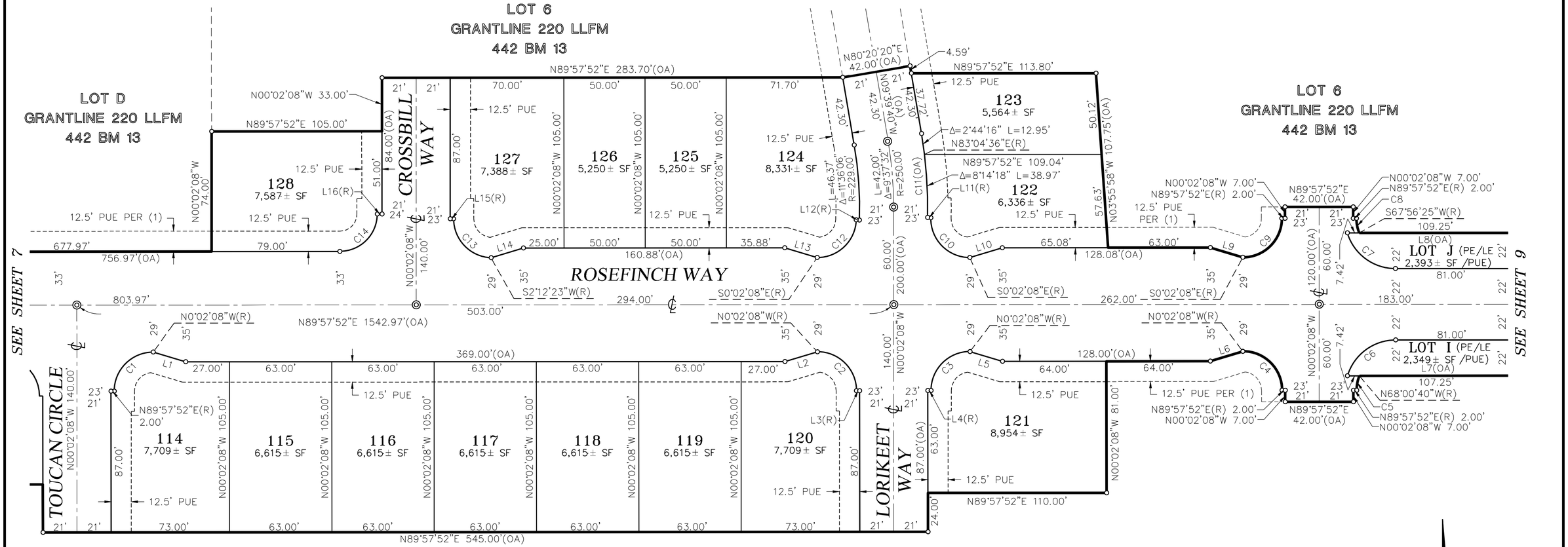
Sheet 7 of 9

1258.023

SEE SHEET 2 FOR BASIS OF BEARINGS, REFERENCES, NOTES & LEGEND.



LOT 4
GRANTLINE 220 LLFM
442 BM 13

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N73°20'10"W	20.88'
L2	N73°15'55"E	20.88'
L3	N89°57'52"E	2.00'
L4	N89°57'52"E	2.00'
L5	N73°20'10"W	20.88'
L6	N73°15'55"E	20.88'
L7	N89°57'52"E	114.66'
L8	N89°57'52"E	116.66'
L9	N73°20'10"W	20.88'
L10	N73°15'55"E	20.88'
L11	N88°41'06"W	2.00'
L12	N88°03'34"W	2.00'
L13	N73°20'10"W	20.88'
L14	N73°15'55"E	20.82'
L15	N89°57'52"E	2.00'
L16	N89°57'52"E	3.00'

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	24.00'	90°00'00"	37.70'
C2	24.00'	90°00'00"	37.70'
C3	24.00'	90°00'00"	37.70'
C4	24.00'	90°00'00"	37.70'
C5	24.00'	22°01'28"	9.23'
C6	31.00'	73°07'22"	39.56'
C7	31.00'	73°07'22"	39.56'
C8	24.00'	22°01'28"	9.23'
C9	24.00'	90°00'00"	37.70'
C10	24.00'	91°21'02"	38.26'
C11	271.00'	10°58'34"	51.92'
C12	24.00'	88°01'26"	36.87'
C13	24.00'	87°45'30"	36.76'
C14	23.00'	90°00'00"	36.13'

SEE SHEET 2 FOR BASIS OF BEARINGS, REFERENCES, NOTES & LEGEND.

FINAL MAP OF

GRANTLINE 220 UNIT 3

SUBDIVISION NO. FM-2021-004-03
BEING ALL OF LOTS 3 & 11 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

LOT 8
GRANTLINE 220 LLFM
442 BM 13

REMAINDER
GRANTLINE 220 LLFM
442 BM 13

CHRYSANTHY BLVD

MATCHLINE 'A'

25' PUE PER (1)

N00°02'08"W(2)
81.57(2)

N00°02'08"W 142.43'(1)
N04°59'37"E 125.48'(1)
N00°02'08"W 193.00'(1)
R=976.00' Δ=10°18'48" L=175.68'(1)
N10°20'55"W 160.24'(1)
L=184.32'(1)
Δ=10°18'48"(1)
R=1024.00'(1)

N00°02'08"W 460.43'

GREY OWL WAY

R=1000.00' Δ=10°18'48" L=180.00'
N10°20'55"W 160.24'
R=1000.00'
Δ=10°18'48"
L=180.00'

N00°02'08"W 140.43'
N01°24'37"W 125.04'
N00°02'08"W 195.00'
R=1024.00' Δ=10°18'48" L=184.32'
N10°20'55"W 160.24'
R=976.00'
Δ=10°18'48"
L=175.68'

N89°57'52"E 87.00'(OA)(1)(2)

LOT K
26,645± SF
(PE/LE/PUE)

N00°02'08"W 140.73'(1)
N01°24'37"W 125.04'(1)
N00°02'08"W 194.70'(1)
R=1049.00' Δ=10°18'48" L=188.82'(1)
N10°20'55"W 160.24'(1)
R=951.00'(1)
Δ=10°18'48"(1)
L=171.18'(1)

35.00'
35'
24'
27.00'
27'
24'
25.00'
24'
24'
25'

MATCHLINE 'A'

LOT 6
GRANTLINE 220 LLFM
442 BM 13

REMAINDER
GRANTLINE 220 LLFM
442 BM 13

25' PUE PER (1)

R=1024.00'(1)
Δ=10°18'48" L=184.32(1)
N00°02'08"W 136.88'(1)
L=47.94'(1)
Δ=61°02'21"(1)
R=45.00'(1)

GREY OWL COURT

Δ=188°55'51" L=164.87'(1)
(OA)R=50.00' Δ=255°28'36" L=222.96'
7' PUE PER (1)
N37°51'22"E(R)(1)
26.53'(1)

GREY OWL WAY

R=1000.00'
Δ=10°18'48"
L=180.00'
N00°02'08"W 220.00'(OA)
115.29'
104.71'
N89°57'52"E
23.00'
N89°57'52"E(OA)
1542.97'(OA)
183.00'
24'
24'
28.02'
24'
R=45.00'
Δ=14°26'14"
L=11.34'
Δ=66°32'45"
L=58.07'
N00°02'08"W 479.00'(1)
27'
N00°02'08"W 621.91'(OA)
600.17'(1)
N89°49'23"E(1)
27.00'(1)

Δ=10°18'48" L=175.68
R=976.00'
(PE/LE/PUE)
LOT K
26,645± SF
62.29'
N00°02'08"W(1)
92.71'(OA)
71.29'(1)
C1
C2
22'
22'
22'
22'
22'
Δ=10°18'48" L=171.18(1)
R=951.00'(1)

LOT H (PE/LE/PUE)
16,838± SF

LOT 10
GRANTLINE 220 LLFM
442 BM 13

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	31.00'	90°00'00"	48.69'
C2	31.00'	90°00'00"	48.69'

LOT 6
GRANTLINE 220 LLFM
442 BM 13

LOT 4
GRANTLINE 220 LLFM
442 BM 13

ROSEFINCH WAY

N89°57'52"E 109.25'(1)
(PE/LE/PUE)
81.00'
N89°57'52"E 107.25'(1)

LOT J
2,393± SF

LOT I
2,349± SF

SEE SHEET 8

LOT K
26,645± SF
Δ=78°50'24"
L=42.66'
R=31.00'(OA)
Δ=90°00'00"(OA)
L=48.69'(OA)
N00°02'08"W 92.71'(OA)
71.29'
21.41'
S14°30'47"E(R)
Δ=11°09'36" L=6.04'
N89°57'52"E
109.25'
81.00'
LOT J
ROSEFINCH WAY

DETAIL 'A' - SCALE: 1" = 10'

ROSEFINCH WAY
R=31.00'(OA)
Δ=90°00'00"(OA)
L=48.69'(OA)
Δ=82°35'11"
L=44.68'
LOT H
16,838± SF
N9°33'31"E(R)
N00°02'08"W 621.91'(OA)
21.74'
600.17'
Δ=7°24'49" L=4.01'
81.00'
LOT I
107.25'
N89°57'52"E

DETAIL 'B' - SCALE: 1" = 10'

0 20 40 80
SCALE:1"= 40'

SEE SHEET 2 FOR BASIS OF BEARINGS, REFERENCES, NOTES & LEGEND.

FINAL MAP OF
GRANTLINE 220 UNIT 3
SUBDIVISION NO. FM-2021-004-03
BEING ALL OF LOTS 3 & 11 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
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NOVEMBER 2022

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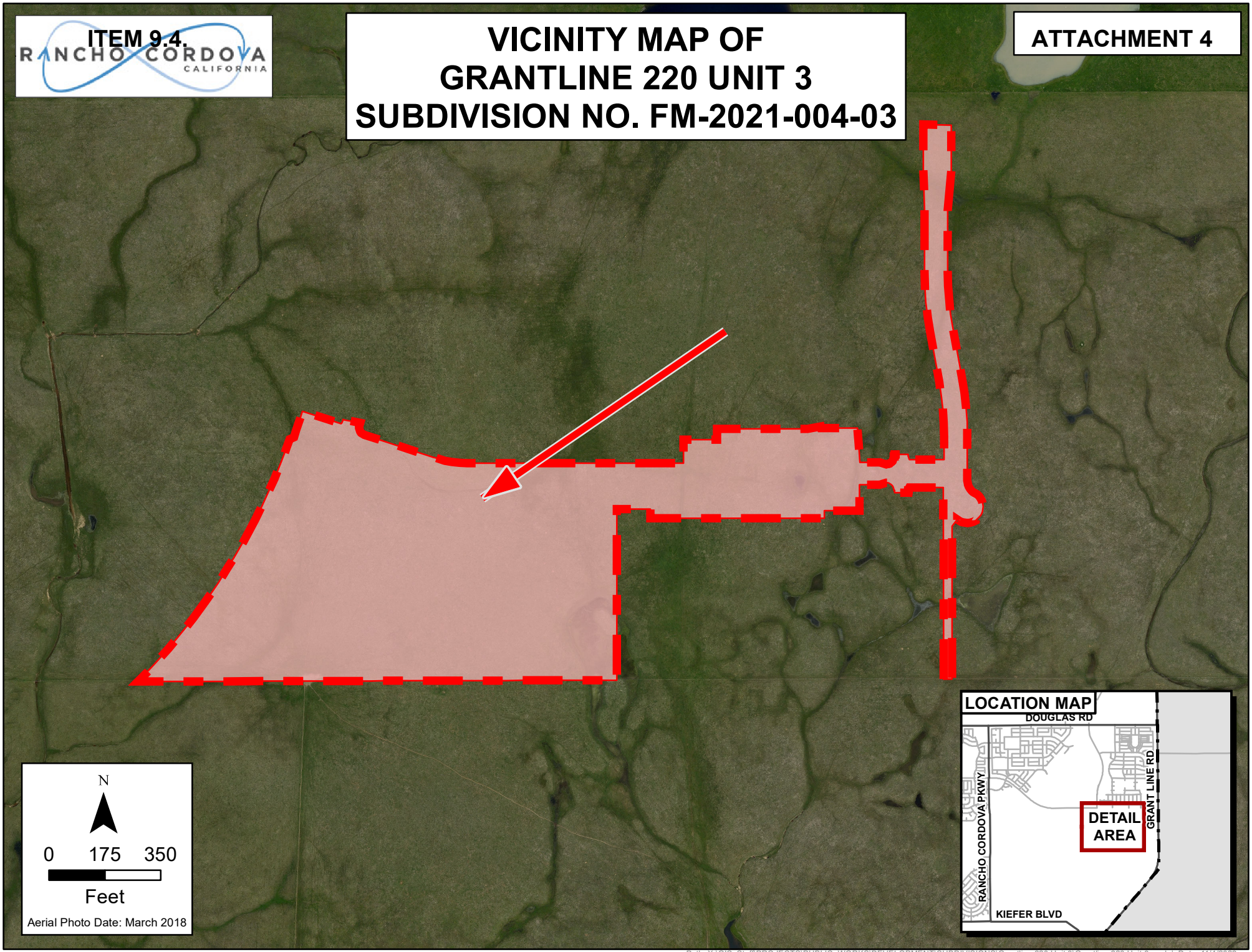
Sacramento, CA 95816 Fax 916.341.7767

RANCHO CORDOVA CALIFORNIA

VICINITY MAP OF GRANTLINE 220 UNIT 3 SUBDIVISION NO. FM-2021-004-03

ATTACHMENT 4



Path: X:\GIS_Staff\PROJECTS\PUBLIC_WORKS\DEVELOPMENT\SUBDIVISIONS\Grantline 220 Unit 3\Grantline 220 Unit 3.mxd | Date: 12/4/2022

MEMORANDUM

ITEM 9.5.

DATE: November 21, 2022

TO: Honorable Mayor and Council Members

FROM: Albert Stricker, Public Works Director
Quoc Nham, Senior Civil Engineer

SUBJECT: **A RESOLUTION APPROVING THE FINAL MAP OF GRANTLINE 220 UNIT 4, SUBDIVISION NO. FM-2021-004-04, AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE SUBDIVISION IMPROVEMENT AGREEMENT 2022-229 WITH LENNAR HOMES OF CALIFORNIA, LLC**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would approve the Final Map of Grantline 220 Unit 4 Subdivision No. FM-2020-004-04 and Authorize the City Manager to Execute Subdivision Improvement Agreement 2022-229 with Lennar Homes of California, LLC.

BACKGROUND

The map has been examined and checked for compliance with Title 22 of the City of Rancho Cordova Municipal Code and the California Subdivision Map Act. The City Council approved the Tentative Subdivision Map on June 7, 2021. A copy of the final map, Attachment 3, and copy of the vicinity map, Attachment 4, are included with this letter. The developer has chosen a theme of bird species for neighborhood roadway names.

Roads are offered for dedication with this subdivision. Lennar Homes of California, LLC has provided a performance and labor and material bond guaranteeing the construction of the public improvements. Wood Rodgers has waived the requirement for a bond to guarantee payment for setting the survey monuments with the subdivision. The soil report requirement has been satisfied by Wallace Kuhl & Associates dated August 4, 2021.

There are no delinquent taxes against the property and the Tax Collector has so certified. The 2022/2023 estimated taxes have been secured with the Sacramento County Tax Collector.

FISCAL IMPACT AND FUNDING SOURCE

There is no fiscal impact to the City.

ATTACHMENT(S)

1. Resolution
2. Contract No. 2022-229
3. Final Map
4. Vicinity Map

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, APPROVING THE FINAL MAP OF GRANTLINE 220 UNIT 4 SUBDIVISION NO. FM-2021-004-04, AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE SUBDIVISION IMPROVEMENT AGREEMENT 2022-229 WITH LENNAR HOMES OF CALIFORNIA, LLC

WHEREAS, the City Council approved the Tentative Subdivision Map on June 7, 2021, per Resolution No. 91-2021; and

WHEREAS, the map is in substantial compliance with the approved tentative map; and

WHEREAS, the conditions of approval have been complied with; and

WHEREAS, the map complies with Title 22 of the City of Rancho Cordova municipal code and the California Subdivision Map Act; and

WHEREAS, the approval of final maps is exempt from review under the California Environmental Quality Act (CEQA) pursuant to CEQA Regulation Section 15268(b)(3) as a ministerial approval; and

WHEREAS, the City desires to enter into a subdivision improvement agreement with the developer to ensure necessary public improvements are completed and secured with a bond.

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does approve the Final Map of Grantline 220 Unit 4 Subdivision No. FM-2021-004-04 and does authorize the City Manager to execute a Subdivision Improvement Agreement 2022-229 with Lennar Homes of California, LLC in a form approved by the City Attorney.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 21st day of November 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

_____
Donald Terry, Mayor

_____
Stacy Leitner, CMC
City Clerk

SUBDIVISION IMPROVEMENT AGREEMENT

GRANTLINE 220 UNIT 4 FM-2021-004-04

THIS SUBDIVISION IMPROVEMENT AGREEMENT (hereinafter, “Agreement”) entered into this _____ day of _____, 20__, by and between the City of Rancho Cordova, (hereinafter “City"), a California municipal corporation, and Lennar Homes of California, LLC, a California limited liability company (hereinafter "Principal").

RECITALS

WHEREAS, Section 66462 of the Government Code provides that if the work of improvement required therein is not completed prior to the acceptance of a final subdivision map, the owner of the subdivision may enter into an agreement with the City to perform the work of improvement as required by said sections in consideration of the acceptance of said final subdivision map by the City; and

WHEREAS, Section 66499 of the Government Code requires that said agreement be secured by a surety bond or by an instrument of credit issued by a financial institution subject to regulation by the State or federal governments or by a cash deposit; and

WHEREAS, Section 66499.3 establishes the types and amount of security to guarantee the performance of any such improvement agreement; and

WHEREAS, City and Principal desire to enter into an improvement agreement as authorized by the Subdivision Map Act under the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the mutual promises, conditions and covenants hereinafter set forth, City and Principal agree as follows:

1. Incorporation of Recitals. The foregoing recitals are hereby incorporated by reference.

2. Findings and Conditions of Subdivision Map. Principal recognizes that approval of its subdivision was subject to the findings and conditions attached to such approval and hereby acknowledges and agrees to be bound by such findings and conditions.

3. City Approval of Subdivision Map. City agrees to approve the final map of the subdivision presented to it by Principal and designated Grantline 220 Unit 4, FM-2021-004-04 and to accept on behalf of the public all lands, rights of way and easements therein offered in dedication, in accordance with the conditions hereinafter set forth.

4. Completion of Improvements. In consideration of such approval, Principal

agrees to complete the work of improvement required for said subdivision in accordance with the requirements of the Rancho Cordova Municipal Code and such standard specifications created by applicable City ordinances or resolutions which are in effect at the time of the installation of said improvements. The work required may lie within or outside the subdivision and must be completed within **24** months of the date of this Agreement.

5. Payment For Services. Principal further agrees to promptly pay, when due, all costs for plan checking, inspection services and material testing performed by City pursuant to the requirements of Sections 12.03.210 et. seq. of the Rancho Cordova Municipal Code.

6. Community Facilities Renovation Fee. Principal acknowledges that under the terms of the Development Agreement by and between The City of Rancho Cordova and Grantline & Chrystanthy 220 Investors, LLC Relative to the Suncreek Project Recorded as Sacramento County Recorder # **20140121 page 1146.** Principal is obligated to pay the City a fee in Section 6 of the above Development Agreement per single family lot within the Final Map ("Community Facilities Renovation Fee"). Principal acknowledges and agrees that such fee will be paid prior to the issuance of a building permit for the respective lot.

7. Acceptance of Improvements. Upon satisfactory completion of all public improvements in accordance with standard specifications created by City ordinances or resolutions which are in effect at the time of the installation of said improvements, City agrees to accept for maintenance the work of improvement within the dedicated parcels shown on said final subdivision map, and any off site easements granted, subject to the provisions of paragraph 9 hereof. Acceptance will be postponed until such time the City determines a public purpose exists. Public Purpose is defined as existence of habitable structures within the subdivision.

8. Notice of Commencement of Work. Principal shall notify the City Engineer in writing of the commencement of the work of improvements.

9. Correction of Defects. Principal agrees to remedy any defects in the improvement arising from faulty or defective construction of said improvements occurring within twelve months after acceptance thereof by City.

10. Indemnity. Principal shall indemnify and hold harmless with counsel selected by the City, the City of Rancho Cordova, its agents, officers, consultants, and employees (“City”) from any and all loss, damage or liability arising out of or resulting from Principal's performance or non-performance of his duties and obligations under this Agreement, or from the negligent act or omission of himself, his agents, servants and employees. Principal shall, at his own cost and expense, defend any and all actions, suits, or legal proceedings arising out of or resulting

from the performance or nonperformance of this Agreement, that may be brought or instituted against the City, its officers and employees, on any such claim or demand, and pay or satisfy any judgment that may be rendered against the City in any such action, suit or legal proceedings, or result thereof, regardless whether caused in part by a party indemnified hereunder.

11. Extension of Completion Date. If the construction of the work or improvement should be delayed without fault of Principal, the time for completion thereof may be extended by City for such period of time as City may deem reasonable.

12. Improvement Security. (a) Principal shall obtain and furnish to City an improvement security consisting of a surety bond in favor of City, issued by a corporate surety authorized to do business in the State of California, and in form approved by City, securing the faithful performance by Principal of the work of improvement required, and also securing the payment of the costs and interest, if any, due under Sections 12.030.210 et seq. of the Rancho Cordova Municipal Code, as provided in Paragraph 5 herein and an additional bond issued by a corporate surety authorized to do business in the State of California, in the amount of not less than 50 percent of the total estimated cost of the improvement, securing payment to contractor, his subcontractors, and to persons renting equipment or furnishing labor or materials for the improvement.

(b) In lieu of said corporate surety bonds, Principal may furnish an improvement security consisting of a letter of credit, certificate of deposit, or similar instrument of credit, in form satisfactory to City, issued by a financial institution subject to regulation by the State or Federal government, pledging that the funds necessary to meet the performance required herein are on deposit, and guaranteed for payment on demand. Said letter of credit, certificate of deposit, or similar instrument of credit shall provide that the funds designated therein shall become trust funds for the purposes set forth in said instrument.

(c) The failure of Principal to commence the required work of improvements, or to complete the same within the time required after commencement thereof, shall entitle City to the full payment of the security, or so much thereof as may be necessary to complete the required work of improvement. The amount of the surety bond for faithful performance shall be in the sum of **$2,695,000**. The amount of the surety bond for the payment of the claims of the contractor, his subcontractors, and to persons renting equipment or furnishing labor or materials for the improvement shall be at least 50 percent of the above amount. The letter of credit, certificate of deposit or similar instrument of credit, or cash deposit for faithful performance, shall be in the above amount plus an additional 50 percent for the purposes set forth herein.

13. Improvement Security As Condition Precedent. The furnishing of the improvement security by Principal as required by paragraph 12 hereof shall be a condition precedent to acceptance by City of the above described real property and the performance by the City of the covenants herein on its part to be performed.

14. Inspection of Work In Progress. (a) Principal may request The City Engineer to inspect the work as it progresses. If the work performed is found to be in accordance with the requirements of City, it may be accepted as it progresses and a partial refund of the cash deposit, or a release pro tanto of the faithful performance bond, letter of credit, certificate of deposit or similar instrument of credit shall be made in a sum in the same ratio to the total deposit as the work accepted bears to the total work to be done. No refund in excess of 85 percent of the total amount of the improvement security for faithful performance shall be made until all the work has been completed and accepted.

(b) The determination of the Administrator of Public Works of City as to the amount of work done, and the amount of refund or partial release pro tanto, shall be final and conclusive. When the work of improvement is accepted, 10 percent of the improvement security shall be retained to guarantee faithful performance of the provisions of paragraph 9 of this Agreement.

(c) Improvement security given to secure payment to contractor, his subcontractors and to persons renting equipment or furnishing labor or materials for the work of improvement may, six months after completion and acceptance of the work, be reduced to an amount not less than the total of all claims on which an action has been filed, and notice thereof given in writing to City, and if there are no actions filed, such improvement security may be released in full.

15. Execution By Real Party In Interest. Where title to the subdivision property is held by the record owner thereof under a holding Agreement, this Agreement and the bond given pursuant thereto must be executed by the real party or parties in interest.

16. Waiver of Civil Code Section 2819. Any extension of time hereunder shall not operate to release the surety on the bond filed pursuant to this Agreement. In this connection the surety waives the provisions of Section 2819 of the Civil Code of the State of California.

17. City Construction of Improvements. In the event that all or any portion of the works of improvement contemplated herein are proposed to be constructed by street improvement proceedings under the control of City, the undertaking of such proceedings shall in no way relieve Principal of any duties under this Agreement, except where all of the works of improvement that are required under this Agreement have in fact been constructed and accepted by City.

18. Interest. Interest shall accrue at the highest rate permitted by law on all sums from the date payment is due under the terms of this Agreement and the sum due is certain or reasonably capable of being made certain.

19. Attorneys' Fees. In the event that it is necessary for the City to enforce the obligations secured by the improvement security furnished pursuant to Paragraph 12 hereof, the City shall be entitled to recover its costs and reasonable expenses and fees, including reasonable attorneys' fees, as provided for in Government Code Section 66499.4.

20. Amendments. This Agreement may be modified or amended, or any of its provisions waived, only by a subsequent written agreement executed by the parties hereto.

21. Entire Agreement. This Agreement and any attachments hereto constitute the sole, final, complete, exclusive and integrated expression and statement of the terms and conditions of this Agreement among the parties hereto concerning the subject matter addressed herein, and supercedes all prior negotiations, representations or agreements, oral or written, that may be related to the subject matter of this Agreement.

22. Construction and Interpretation. It is agreed and acknowledged by the Principal that the provisions of this Agreement have been arrived at through negotiation, and that the Principal has had a full and fair opportunity to revise the provisions of this Agreement and to have such provisions reviewed by legal counsel. Therefore, the normal rule of construction that any ambiguities are to be resolved against the drafting party shall not apply in construing or interpreting this Agreement.

23. Successors and Assigns. This Agreement shall bind and inure to the benefit of the respective successors and assigns of the parties hereto.

24. Time. Time is of the essence in the performance of each and every term of this Agreement.

SIGNATURE PAGE FOLLOWING

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first set forth above, which date shall be considered by the Parties to be the effective date of this Agreement.

CITY OF RANCHO CORDOVA,
California Municipal Corporation

_____
Cyrus Abhar, City Manager

Date: _____

LENNAR HOMES OF CALIFORNIA, LLC.,
a California limited liability company
(as successor-in-interest by conversion to Lennar Homes of California, Inc., a California corporation)

_____
Larry Gualco, Sr. Vice President

Date: _____

ATTEST:

_____
Stacy Leitner, CMC, City Clerk

OWNER'S STATEMENT

THE UNDERSIGNED HEREBY CONSENT TO THE PREPARATION AND RECORDING OF THIS FINAL MAP OF GRANTLINE 220 UNIT 4.

THE REAL PROPERTY DESCRIBED BELOW IS DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES:

THE UNDERSIGNED HEREBY OFFERS FOR DEDICATION AND DOES HEREBY DEDICATE TO ANY AND ALL PUBLIC USES, THE PUBLIC ROADS DESIGNATED HEREON AS TOUCAN CIRCLE, PARAKEET WAY AND LORIKEET WAY AS SHOWN HEREON, AND DOES HEREBY DEDICATE TO SPECIFIC PURPOSES THE FOLLOWING:

1. EASEMENTS FOR PLANTING AND MAINTAINING TREES, ELECTROLIERS, TRAFFIC CONTROL DEVICES, WATER AND GAS PIPES, AND UNDERGROUND WIRES AND CONDUITS FOR ELECTRIC, TELEVISION AND TELEPHONE SERVICES, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO, ON, OVER, UNDER AND ACROSS THOSE STRIPS OF LAND 12.50' IN WIDTH, LYING CONTIGUOUS TO THE PUBLIC STREETS SHOWN HEREON AND DESIGNATED "PUBLIC UTILITY EASEMENT" (PUE).
2. AN EASEMENT FOR CONSTRUCTING AND MAINTAINING CENTRALIZED MAIL DELIVERY BOXES, PEDESTALS, AND SLABS, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO INCLUDING PEDESTRIAN ACCESS FOR DELIVERY AND RECEIPT OF MAIL ON, OVER, UNDER AND ACROSS STRIPS OF LAND FIVE FEET IN WIDTH LYING CONTIGUOUS TO THE PUBLIC STREETS SHOWN HEREON.

LENNAR HOMES OF CALIFORNIA, LLC
A CALIFORNIA LIMITED LIABILITY COMPANY
(AS SUCCESSOR-IN-INTEREST BY CONVERSION TO
LENNAR HOMES OF CALIFORNIA, INC., A CALIFORNIA CORPORATION)

BY: _____

NAME: _____

TITLE: _____

NOTARY'S ACKNOWLEDGMENT

A NOTARY PUBLIC OR OTHER OFFICER COMPLETING THIS CERTIFICATE VERIFIES ONLY THE IDENTITY OF THE INDIVIDUAL WHO SIGNED THE DOCUMENT TO WHICH THIS CERTIFICATE IS ATTACHED, AND NOT THE TRUTHFULNESS, ACCURACY, OR VALIDITY OF THAT DOCUMENT.

STATE OF CALIFORNIA)
COUNTY OF _____) SS

ON _____ DAY OF _____, 2022 BEFORE ME, _____ _____, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, PERSONALLY APPEARED _____ _____ WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND AND OFFICIAL SEAL: _____

PRINTED NAME: _____

MY PRINCIPAL PLACE OF BUSINESS IS IN THE COUNTY OF: _____

MY COMMISSION EXPIRES: _____

MY COMMISSION No.: _____

SURVEYOR'S STATEMENT

THIS FINAL MAP OF GRANTLINE 220 UNIT 4 WAS PREPARED BY ME OR UNDER MY DIRECTION AND IS BASED UPON A FIELD SURVEY IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AND LOCAL ORDINANCE AT THE REQUEST OF LENNAR HOMES OF CALIFORNIA, LLC, IN OCTOBER, 2021. I HEREBY STATE THAT ALL THE MONUMENTS SHOWN HEREON ARE OF THE CHARACTER AND OCCUPY THE POSITIONS INDICATED OR THAT THEY WILL BE SET IN THOSE POSITIONS BEFORE NOVEMBER 30, 2024 AND THAT THE MONUMENTS ARE, OR WILL BE, SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

WOOD RODGERS, INC.

PROFESSIONAL LAND SURVEYOR — ANDREW P. TAPLEY — 9554 — STATE OF CALIFORNIA

_____
ANDREW P. TAPLEY
P.L.S. 9554

_____
DATE

CITY ENGINEER'S STATEMENT

I HEREBY STATE THAT I HAVE EXAMINED THIS FINAL MAP OF GRANTLINE 220 UNIT 4 AND FIND IT TO BE SUBSTANTIALLY THE SAME AS THE TENTATIVE MAP APPROVED BY THE CITY OF RANCHO CORDOVA, AND ANY APPROVED ALTERATIONS THEREOF; THAT ALL PROVISIONS OF THE SUBDIVISION MAP ACT AND ALL APPLICABLE CITY ORDINANCES HAVE BEEN COMPLIED WITH.

_____
CITY ENGINEER, ALBERT STRICKER, R.C.E. 64057

DATED: _____

REGISTERED PROFESSIONAL ENGINEER — ALBERT STRICKER — No. 64057 — CIVIL — STATE OF CALIFORNIA

CITY SURVEYOR'S STATEMENT

I HEREBY STATE THAT I AM SATISFIED THAT THIS FINAL MAP OF GRANTLINE 220 UNIT 4 IS TECHNICALLY CORRECT.

_____
LAND SURVEYOR, CYRUS E. ABHAR, P.L.S. 7723

DATED: _____

LICENSED LAND SURVEYOR — CYRUS E. ABHAR — No. 7723 — STATE OF CALIFORNIA

CITY CLERK'S STATEMENT

I HEREBY STATE THAT THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA HAS APPROVED THIS FINAL MAP OF GRANTLINE 220 UNIT 4 AND HAS ACCEPTED ON BEHALF OF THE PUBLIC ALL EASEMENTS AND RIGHTS-OF-WAY SHOWN HEREON SUBJECT TO COMPLETION OF THE IMPROVEMENTS.

BY: _____
CITY CLERK
CITY OF RANCHO CORDOVA

DATED: _____

RECORDER'S STATEMENT

FILED THIS_____DAY OF _____, 2022, AT _____ ___.M. IN BOOK _____ OF MAPS, AT PAGE _____ AT THE REQUEST OF WOOD RODGERS, INC. TITLE TO THE LAND INCLUDED IN THIS FINAL MAP BEING VESTED AS PER CERTIFICATE NO. _____ ON FILE IN THIS OFFICE.

DONNA ALLRED, COUNTY RECORDER
COUNTY OF SACRAMENTO

DOCUMENT NO.: _____

BY: _____
DEPUTY RECORDER

FEE: $ _____

FINAL MAP OF

GRANTLINE 220 UNIT 4

SUBDIVISION NO. FM-2021-004-04
BEING ALL OF LOT 4 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

Sheet 1 of 4

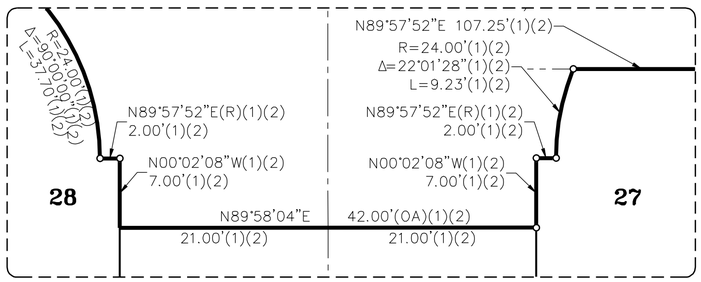
1258.018

BOUNDARY SHEET

NOTES

1. ALL CURVES DIMENSIONED WITH RADIUS, DELTA, AND ARC LENGTH.
2. ALL DISTANCES SHOWN HEREON ARE EXPRESSED IN FEET AND DECIMALS THEREOF.
3. DUE TO ROUNDING, THE SUM OF THE INDIVIDUAL DIMENSIONS MAY NOT EQUAL THE OVERALL DIMENSION.
4. TOTAL AREA FOR THIS "GRANTLINE 220 UNIT 4" FINAL MAP IS 12.59± ACRES, CONSISTING OF 61 RESIDENTIAL LOTS.
5. A 5/8" REBAR CAPPED "LS 9554" WILL BE SET AT ALL REAR LOT CORNERS, ALONG WITH ALL LOT LINE ANGLE POINTS OR AT A 2.00 FOOT PROJECTION ALONG LOT LINES ADJACENT TO WALLS (2.00 FOOT BY 2.00 FOOT OFFSETS FOR ANGLE POINTS ADJACENT TO WALLS). FRONT CORNERS WILL BE SET WITH A 1" BRASS DISK STAMPED "LS 9554" AT A 1.00 FOOT PROJECTION OF THE PROPERTY LINE ONTO THE SIDEWALK.
6. ALL LOTS BEING CREATED BY THIS MAP INCLUDE FEE TITLE TO THE CENTERLINE OF THE COURT, DRIVES, PARKWAY, ROAD AND WAYS SHOWN HEREON, EXCEPT WHERE THE PUBLIC ROAD EASEMENT LINE IS ALSO THE COMMON LINE OF THE SUBDIVISION BOUNDARY, THEN THE FEE TITLE IS TO THE SUBDIVISION BOUNDARY.
7. A SOILS REPORT DATED AUGUST 4, 2021, WAS PREPARED FOR THIS SUBDIVISION BY WALLACE KUHL & ASSOCIATES. A COPY OF THIS REPORT ENTITLED "GEOTECHNICAL ENGINEERING REPORT, GRANTLINE 220, RANCHO CORDOVA, CALIFORNIA, WKA NO. 12590.03", IS AVAILABLE FOR PUBLIC INSPECTION AT THE OFFICE OF THE CITY OF RANCHO CORDOVA BUILDING INSPECTOR.

DETAIL 'A' - SCALE: 1" = 10'-0"



REFERENCES:

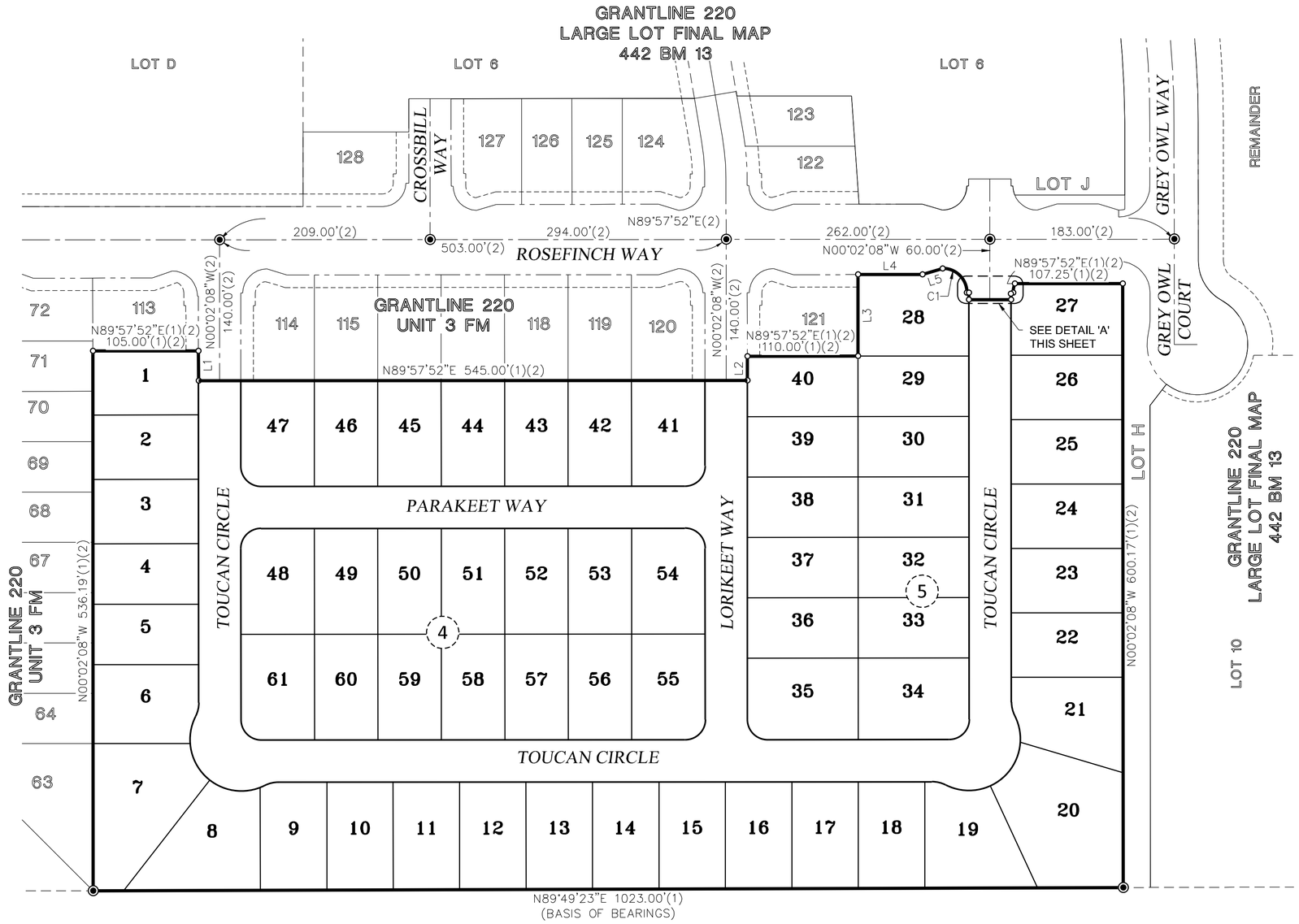
(1)	442 MAPS 13	LARGE LOT FINAL MAP OF GRANTLINE 220
(2)	___ MAPS __	GRANTLINE 220 UNIT 3 FINAL MAP

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS IDENTICAL TO THE SOUTH LINE OF LOT 4 ON THE "LARGE LOT FINAL MAP OF GRANTLINE 220" FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13, SACRAMENTO COUNTY RECORDS. BEARING OF SAID WEST LINE BEING " N89°49'23"E ". DISTANCES ARE GROUND BASED. COMBINED GRID-TO-GROUND FACTOR = 1.0000470000.

LEGEND

○	DIMENSION POINT
◉	FOUND 3/4" IRON PIPE WITH CAP STAMPED "LS 9554"
◎	SET 3/4" IRON PIPE WITH CAP STAMPED "LS 9554"
℄	CENTERLINE
BM	BOOK OF MAPS
L=	ARC LENGTH
NTS	NOT TO SCALE
(OA)	OVERALL
OR	OFFICIAL RECORDS OF SACRAMENTO COUNTY
PUE	PUBLIC UTILITY EASEMENT
(R)	RADIAL BEARING
SF	SQUARE FEET
(6)	SHEET NUMBER REFERENCE



19 RS 11

LINE TABLE – THIS SHEET ONLY			
NO.	BEARING	LENGTH	RFERENCE
L1	N0°02'08"W	29.50'	(1)(2)
L2	N0°02'08"W	24.00'	(1)(2)
L3	N0°02'08"W	81.00'	(1)(2)
L4	N89°57'52"E	64.00'	(1)(2)
L5	N73°15'55"E	20.88'	(1)(2)

CURVE TABLE – THIS SHEET ONLY				
NO.	RADIUS	DELTA	LENGTH	REFERENCE
C1	24.00'	90°00'00"	37.70'	(1)(2)

0 40 80 160

SCALE:1"= 80'

FINAL MAP OF

GRANTLINE 220 UNIT 4

SUBDIVISION NO. FM-2021-004-04

BEING ALL OF LOT 4 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	30.00'	26°57'15"	14.11'
C2	51.00'	5°19'25"	4.74'
C3	30.00'	26°57'15"	14.11'
C4	20.00'	90°00'00"	31.42'

GRANTLINE 220 UNIT 3 FM

GRANTLINE 220 UNIT 3 FM

TOUCAN CIRCLE

PARAKEET WAY

LORIKEET WAY

SEE SHEET 4

SEE SHEET 4

TOUCAN CIRCLE

SCALE:1"= 40'

FINAL MAP OF

GRANTLINE 220 UNIT 4

SUBDIVISION NO. FM-2021-004-04

BEING ALL OF LOT 4 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

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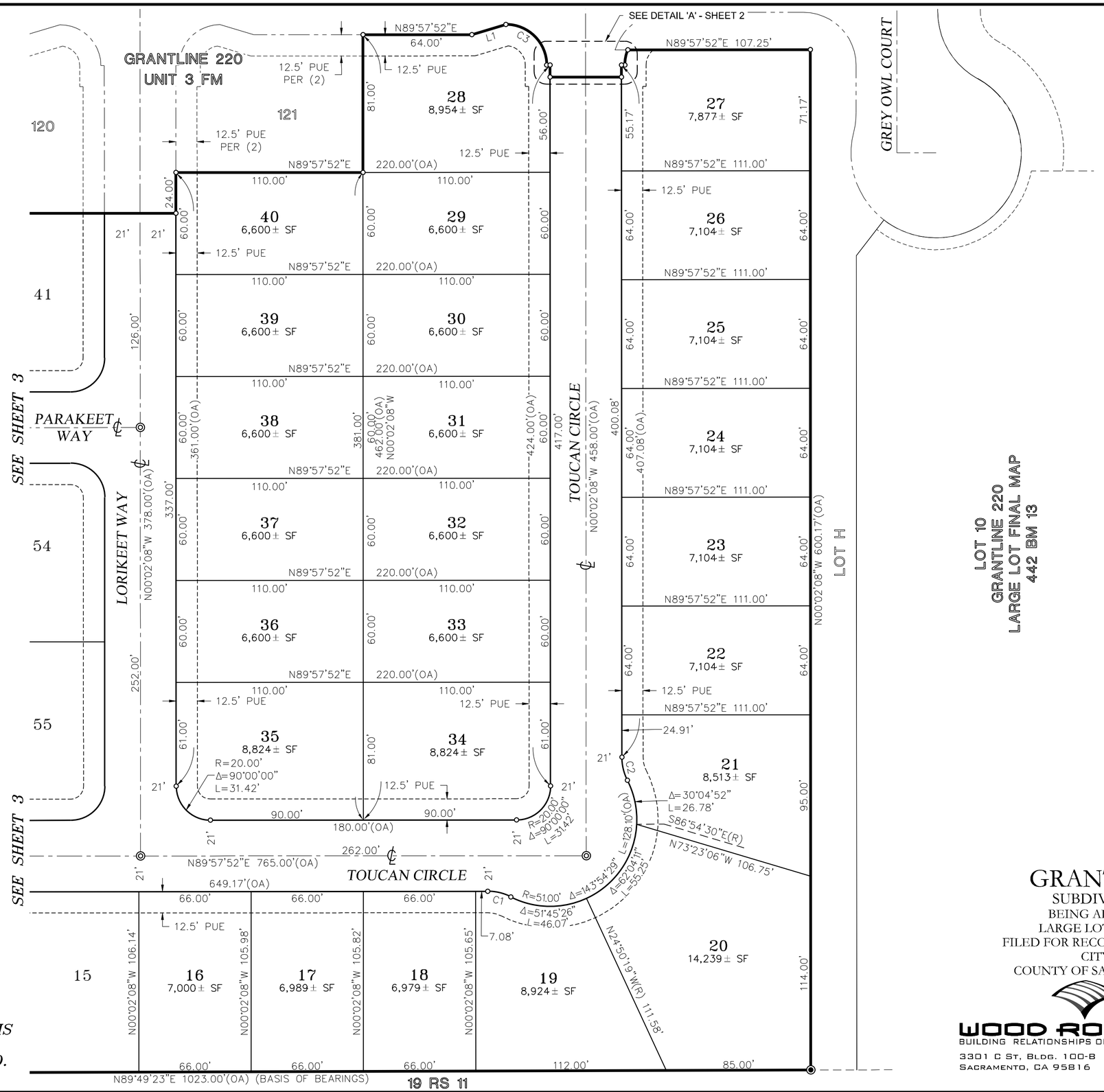
Sacramento, CA 95816 Fax 916.341.7767

SEE SHEET 2 FOR BASIS OF BEARINGS, NOTES, REFERENCES & LEGEND.



CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	30.00'	26°57'15"	14.11'
C2	30.00'	26°57'15"	14.11'
C3	24.00'	90°00'00"	37.70'

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N73°15'55"E	20.88'

LOT 10
GRANTLINE 220
LARGE LOT FINAL MAP
442 BM 13

0 20 40 80

SCALE:1"= 40'

SEE SHEET 2 FOR BASIS OF BEARINGS, NOTES, REFERENCES & LEGEND.

FINAL MAP OF

GRANTLINE 220 UNIT 4

SUBDIVISION NO. FM-2021-004-04
BEING ALL OF LOT 4 OF THAT CERTAIN
LARGE LOT FINAL MAP OF GRANTLINE 220
FILED FOR RECORD IN BOOK 442 OF MAPS, AT PAGE 13
CITY OF RANCHO CORDOVA,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

NOVEMBER 2022

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Sacramento, CA 95816 Fax 916.341.7767

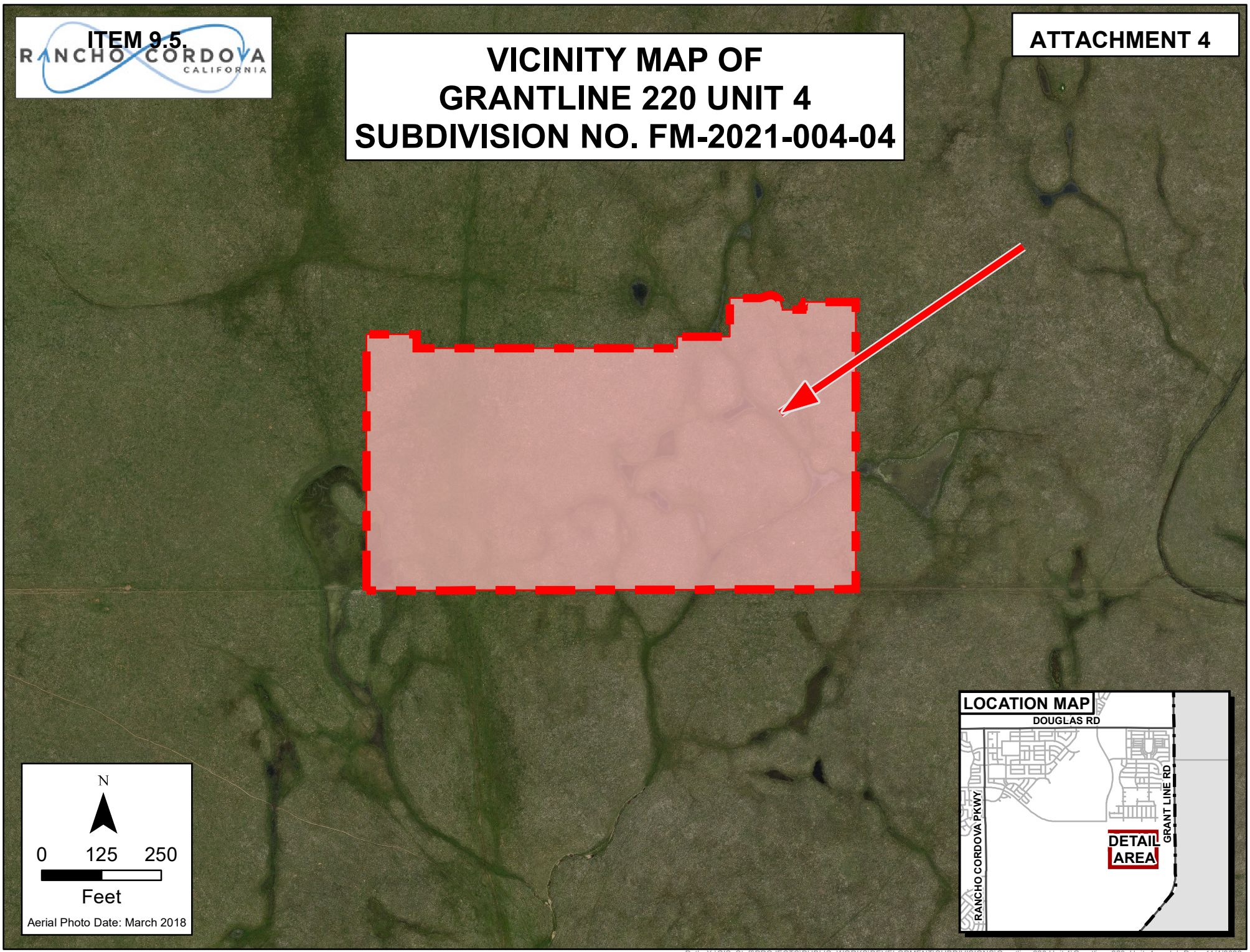
Sheet 4 of 4

1258.018

RANCHO CORDOVA CALIFORNIA

VICINITY MAP OF GRANTLINE 220 UNIT 4 SUBDIVISION NO. FM-2021-004-04

ATTACHMENT 4



Path: X:\GIS_Staff\PROJECTS\PUBLIC_WORKS\DEVELOPMENT\SUBDIVISIONS\Grantline 220 Unit 4\Grantline_220_Unit_4.mxd - Date: 4/4/2022

MEMORANDUM

ITEM 9.6.

DATE: November 21, 2022

TO: Honorable Mayor and Council Members

FROM: Albert Stricker, Public Works Director
Dalia Fadl, Principal Engineer

SUBJECT: **A RESOLUTION APPOINTING AUTHORIZED AGENTS ON BEHALF OF THE CITY OF RANCHO CORDOVA TO EXECUTE THE MONIER CIRCLE DETENTION BASIN GRANT- FEMA'S OBLIGATION FOR HAZARD MITIGATION PROJECT DR4558-PJ0632 (CITY OF RANCHO CORDOVA STORMWATER DETENTION BASIN) AND HAZARD MITIGATION PROJECT DR4558-PJ0629 (CITY OF RANCHO CORDOVA PUMP STATION GENERATORS)**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution will authorize the Public Works Director and Principal Engineer to execute all required documents and invoices related to this FEMA grant.

BACKGROUND

FEMA's Hazard Mitigation Grant Program (HMGP) provides funding to state, local, tribal and territorial governments so they can develop hazard mitigation plans and rebuild in a way that reduces, or mitigates, future disaster losses in their communities. The City of Rancho Cordova applied for, and received, two HMGP grants. The first grant, in the amount of $200,000, will help purchase backup generators for four of the City's pump stations.The generators' grant was awarded to the City in July 2022- see Attachment 1. The second grant, in the amount of $2,250,000 will fund design and construction of a flood control basin on Monier Circle and Sunrise Blvd, which will reduce historic local flooding in that area. The detention basin grant was awarded to the City in October 2022- see Attachment 2.

Approval of the Resolution will authorize the Public Works Director and Principal Eningeer to execute all grant documents, enter into any required agreements, and be designated as duly authorized representatives of the City of Rancho Cordova.

FISCAL IMPACT AND FUNDING SOURCE

This project has no impact on the General Fund. Funding for these grant projects will be provided by the FEMA grant, and match funds will be provided by the City's Stormwater Enterprise fund.

ATTACHMENT(S)

1. Resolution
2. Award Letter- Generators
3. Award Letter- Detention Basin Project

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, APPOINTING AUTHORIZED AGENTS ON BEHALF OF THE CITY OF RANCHO CORDOVA TO EXECUTE THE MONIER CIRCLE DETENTION BASIN GRANT-FEMA'S OBLIGATION FOR HAZARD MITIGATION PROJECT DR4558-PJ0632 (CITY OF RANCHO CORDOVA STORMWATER DETENTION BASIN) AND HAZARD MITIGATION PROJECT DR4558-PJ0629 (CITY OF RANCHO CORDOVA PUMP STATION GENERATORS)

WHEREAS, FEMA's Hazard Mitigation Grant Program (HMGP) provides funding to state, local, tribal and territorial governments so they can develop hazard mitigation plans and rebuild in a way that reduces, or mitigates, future disaster losses in their communities; and

WHEREAS, in 2021, the City of Rancho Cordova applied for two HMGP grants; and

WHEREAS, Hazard Mitigation Project DR4558-PJ0629 (City of Rancho Cordova Pump Station Generators) was awarded to the City in July 2022 in the amount of $200,000; and

WHEREAS, Hazard Mitigation Project DR4558-PJ0632 (City of Rancho Cordova Stormwater Detention Basin) for the Monier Circle detention basin was awarded to the City in October 2022 in the amount of $2,250,000;

NOW, THEREFORE, IT IS HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA THAT the Public Works Director, or Public Works Principal Engineer is hereby authorized to execute for and on behalf of the City of Rancho Cordova, a public entity established under the laws of the State of California, this application and to file it with the California Governor's Office of Emergency Services for the purpose of obtaining federal financial assistance for the following:

- Hazard Mitigation Grant Program (HMGP).
- Flood Mitigation Assistance Program (FMA), under Section 1366 of the National Flood Insurance Act of 1968.

That the City of Rancho Cordova, a public entity established under the laws of the State of California, hereby authorizes its agent(s) to provide to the Governor's Office of Emergency Services for all matters pertaining to such state disaster assistance the assurances and agreements required. This is a disaster/grant specific resolution and is effective for only disaster/grant number(s): DR4558-PJ0632 and DR4558-PJ0629.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 21st day of November 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Donald Terry, Mayor

Stacy Leitner, CMC
City Clerk

ATTACHMENT 2

U.S. Department of Homeland Security
Region 9
1111 Broadway, Suite 1200
Oakland, California 94607

FEMA

May 18, 2022

Mark S. Ghilarducci
Director
Governor's Authorized Representative
California Governor's Office of Emergency Services
3650 Schriever Avenue
Mather, California 95655

Reference: Application Approval, HMGP DR-4558-629-7F
City of Rancho Cordova
City of Rancho Cordova Pump Station Generator Mitigation Project
FIPS Code: 067-59444, Supplement 6

Dear Mr. Ghilarducci:

We approve and issue Hazard Mitigation Grant Program (HMGP) funds for the City of Rancho Cordova, HMGP DR-4558-629-7F, City of Rancho Cordova Pump Station Generator Mitigation Project.

The total project cost is $266,244. As shown in the enclosed Obligation Report - Supplement 6, we are obligating $199,683 for the 75 percent Federal share; the 25 percent non-Federal share is $66,561. These funds are available in SmartLink for immediate and eligible disbursements. The following is a summary of the approved funding:

Total Project Cost:	**Federal Share (75%):**	**Non-Federal Share (25%):**
$266,244	$199,683	$66,561

This HMGP project approval and obligation of funds are subject to the following conditions:

1. **Scope of Work (SOW)** – The City of Rancho Cordova is to install four generators at four existing pump stations: Sunriver Pump Station; Citrus Road Pump Station; West Coloma Pump Station; and Mather Industrial Pump Station. No ground disturbance is planned, as generators will be installed at currently operating pumping stations with existing infrastructure, and the fuel tanks for the generators will be installed above ground.

2. **Project Completion Date** – The work schedule included with the project application indicates that the project will take 24 months to complete; therefore, the project completion date is May 18, 2024. Please inform the sub-recipient that work completed after this date is not eligible for

federal funding, and that federal funds may be de-obligated for work completed outside the completion date when there is no approved time extension.

3. **Project Closeout –** Within 120 days of project completion, all project funds must be liquidated and final closeout documentation for the project must be submitted to FEMA. Please note the project must comply with Code of Federal Regulations Title 2, Part 200 reporting requirements at the time of closeout.

4. **Record of Environmental Considerations (REC)** – FEMA has determined that the project is covered by Categorical Exclusion (CATEX) N8 for "Federal Assistance for New Construction Activities of Less Than One Acre in Undisturbed or Undeveloped Areas." CATEX N18 covers Federal assistance for new construction and associated site preparation activities in undisturbed or undeveloped areas when the activities comprise less than one acre and follow best management practices to control noise, water, and air pollution. The project site size is 0.33 acres, which is less than the one acre size limitation on the CATEX and the project meets the criteria listed above. There are no floodplains or wetlands in the project area and there would be no effect on floodplains or wetlands. Failure to comply with these conditions may jeopardize federal assistance including funding. Please reference the enclosed REC for further information.

5. **Standard Conditions** – This project approval is subject to the enclosed *Standard Mitigation Grant Program (HMGP) Conditions,* amended August 2018. Please note that federal funds may be de-obligated for work that does not comply with these conditions.

If you have any questions or need further assistance please contact Aaron Lim, Hazard Mitigation Assistance Specialist, by email aaron.lim@fema.dhs.gov, or phone (510) 627-7036.

Sincerely,

KATHRYN J LIPIECKI

Digitally signed by KATHRYN J LIPIECKI
Date: 2022.05.21 05:34:42 -07'00'

Kathryn Lipiecki
Director, Mitigation Division
FEMA Region 9

Enclosures (4):
Obligation Report - Supplement 6
Project Management Report
Record of Environmental Consideration (REC)
Standard Mitigation Grant (HMGP) Conditions

cc:
Jennifer Hogan, State Hazard Mitigation Officer, California Governor's Office of Emergency Services
Jacy Hyde Ph.D., Branch Chief, California Governor's Office of Emergency Services
Robert McCord, Chief, Hazard Mitigation Assistance Branch, FEMA Region 9

HAZARD MITIGATION GRANT PROGRAM

Obligation

Disaster No	FEMA Project No	Amendment No	State Application ID	Action No	Supplemental No	State	Recipient
4558	7 -F	0	629	1	6	CA	Statewide

Subrecipient: Rancho Cordova (Mills)
Subrecipient FIPS Code: 067-59444

Project Title : 5% City of Rancho Cordova Pump Station Generator

Total Amount Previously Allocated	Total Amount Previously Obligated	Total Amount Pending Obligation	Total Amount Available for New Obligation
$199,683.00	$199,683.00	$0.00	$0.00

Project Amount	Subrecipient Management Cost Amount	Total Obligation	IFMIS Date	IFMIS Status	FY
$199,683.00	$0.00	$199,683.00	05/05/2022	Accept	2022

Comments

Date: 05/05/2022 User Id: SSCOTT39

Comment: Approved funding for HMGP 4558-629-7F-Sacramento County-5% City of Rancho Cordova Pump Station Generator-$199,683.00.

Authorization

Preparer Name: STEVEN SCOTT Preparation Date: 05/05/2022

HMO Authorization Name: AARON LIM HMO Authorization Date: 05/05/2022

Project Management Report

Disaster Number	FEMA Project Number	Amendment Number	App ID	State	Recipient
4558	**7 - F**	**0**	**629**	**CA**	**Statewide**

Subrecipient: Rancho Cordova (Mills)
FIPS Code: 067-59444 Project Title : 5% City of Rancho Cordova Pump Station Generator

Mitigation Project Description

Amendment Status : Approved **Approval Status:** Approved

Project Title : 5% City of Rancho Cordova Pump Station Generator

Recipient : Statewide **Subrecipient :** Rancho Cordova (Mills)

Recipient County Name : Sacramento Subrecipient County Name : Sacramento

Recipient County Code : 67 Subrecipient County Code : 67

Recipient Place Name : Rancho Cordova (Mills) Subrecipient Place Name : Rancho Cordova (Mills)

Recipient Place Code : 0 Subrecipient Place Code : 59444

Project Closeout Date : 00/00/0000

Work Schedule Status

Amend #	Description	Time Frame	Due Date	Revised Date	Completion Date
0	Admin: Execute Grant Funding Agreement & Kick-off I	2 Months	00/00/0000	00/00/0000	00/00/0000
0	Environmental Clearance	6 Months	00/00/0000	00/00/0000	00/00/0000
0	Generator Procurement	3 Months	00/00/0000	00/00/0000	00/00/0000
0	Open Bids and Award Contract	2 Months	00/00/0000	00/00/0000	00/00/0000
0	Construction: Order Generator & Prodcut Lead Time	4 Months	00/00/0000	00/00/0000	00/00/0000
0	ruction: Sunriver Pump Station Generator & ATS Insta	1 Week	00/00/0000	00/00/0000	00/00/0000
0	uction: Citrus Rd Pump Station Generator & ATS Insta	1 Week	00/00/0000	00/00/0000	00/00/0000
0	ıction: W. Coloma Pump Station Generator & ATS Inst	1 Week	00/00/0000	00/00/0000	00/00/0000
0	uction:Mather Ind Pump Station Generator & ATS Inst	1 Week	00/00/0000	00/00/0000	00/00/0000
0	Project Close-out and Record Drawing	1 Month	00/00/0000	00/00/0000	00/00/0000
0	Grant Close-out	3 Month	00/00/0000	00/00/0000	00/00/0000

Approved Amounts

Total Approved Net Eligible	Federal Share Percent	Total Approved Federal Share Amount	Non-Federal Share Percent	Total Approved Non-Fed Share Amount
$266,244.00	75.000000000	$199,683.00	25.00000000	$66,561.00

Allocations

Allocation Number	IFMIS Status	IFMIS Date	Submission Date	FY	ES/DFSC Support Req ID	ES/DFSC Amend Nr	Proj Alloc Amount Fed Share	Subrecipient Management Cost	Total Alloc Amount
7	A	05/05/2022	05/05/2022	2022	7487537	3	$199,683.00	$0.00	$546,933.00
						Total	$199,683.00	$0.00	$546,933.00

Obligations

Action Nr	IFMIS Status	IFMIS Date	Submission Date	FY	SFS Support Req ID	SFS Amend Number	Suppl Nr	Project Obligated Amt - Fed Share	Subrecipient Management Cost	Total Obligated Amount
1	A	05/05/202	05/05/2022	2022	7636660	0	6	$199,683.00	$0.00	$199,683.00
							Total	$199,683.00	$0.00	$199,683.00

FEDERAL EMERGENCY MANAGEMENT AGENCY

RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

Project HMGP-4558-0007-CA (4558-629-7) (1)

Title: 5% City of Rancho Cordova Pump Station Generators

NEPA DETERMINATION

Non Compliant Flag: No
EA Draft Date:
EA Final Date:
EA Public Notice Date:
EA Fonsi
Level: CATEX
EIS Notice of Intent
EIS ROD Date:

Comment The City of Rancho Cordova is proposing to install four generators to support stormwater pump stations during emergency events at four existing pump stations: Sunriver Pump Station (38.61923489, -121.282637); Citrus Road Pump Station (38.61060377, -121.2644354); West Coloma Pump Station (38.58824871, -121.3242804); and Mather Industrial Pump Station (38.56290828, -121.3176344). No ground disturbance is planned, as generators will be installed at currently operating pumping stations with existing infrastructure, and the fuel tanks for the generators will be installed above ground. Staging was not specified but it may be assumed that existing roads and facilities will be used.

FEMA has determined that the project is covered by Categorical Exclusion (CATEX) N8 for "Federal Assistance for New Construction Activities of Less Than One Acre in Undisturbed or Undeveloped Areas." CATEX N18 covers Federal assistance for new construction and associated site preparation activities in undisturbed or undeveloped areas when the activities comprise less than one acre and follow best management practices to control noise, water, and air pollution. The project site size is 0.33 acres, which is less than the one acre size limitation on the CATEX and the project meets the criteria listed above. There are no floodplains or wetlands in the project area and there would be no effect on floodplains or wetlands.
- joneal4 - 04/13/2022 21:50:21 GMT

CATEX CATEGORIES

Catex Category Code	Description	Selected
*n18	(*n18) Federal Assistance for Construction or Installation of Structures, Facilities, or Equipment to Ensure Continuity of Operations. Federal assistance for the construction or installation of measures for the purpose of ensuring the continuity of operations during incidents such as emergencies, disasters, flooding, and power outages involving less than one acre of ground disturbance. Examples include the installation of generators, installation of storage tanks of up to 10,000 gallons, installation of pumps, construction of structures to house emergency equipment, and utility line installation. This CATEX covers associated ground disturbing activities, such as trenching, excavation, and vegetation removal of less than one acre, as well as modification of existing structures.	Yes

EXTRAORDINARY

Extraordinary Circumstance Code	Description	Selected ?
	No Extraordinary Circumstances were selected	

ENVIRONMENTAL LAW / EXECUTIVE ORDER

Environmental Law/ Executive Order	Status	Description	Comment

FEDERAL EMERGENCY MANAGEMENT AGENCY

RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

Project HMGP-4558-0007-CA (4558-629-7) (1)

Title: 5% City of Rancho Cordova Pump Station Generators

Environmental Law/ Executive Order	Status	Description	Comment
Clean Air Act (CAA)	Completed	Project is located in a non-attainment area	The project is located in Sacramento County that is within a nonattainment area for PM 2.5 (2006), and 8 hr Ozone (2008, 2015) according to the U.S. Environmental Protection Agency (USEPA): https://www3.epa.gov/airquality/greenbook/anayo_ca.html updated June 30th, 2021. Based on the scope of work, the potential emissions from project activities are clearly below de minimis thresholds for the General Conformity Rule. Thus, the project is exempt from a conformity determination. See condition. - joneal4 - 04/13/2022 21:47:26 GMT
	Completed	Coordination required with applicable state administering agency - Review concluded	
Coastal Barrier Resources Act (CBRA)	Completed	Project is not on or connected to CBRA Unit or otherwise protected area - Review concluded	
Clean Water Act (CWA)	Completed	Project would not affect any water of the U.S. - Review concluded	The National Wetlands Inventory (NWI) does not identify any streams, waterbodies, or wetlands in the project area. This project would not affect Waters of the U.S.; therefore, coordination with the U.S. Army Corps of Engineers is not required. - joneal4 - 04/13/2022 21:46:57 GMT
Coastal Zone Management Act (CZMA)	Completed	Project is not located in a coastal zone area and does not affect a coastal zone area - Review concluded	The project site is not in a coastal zone area and would not affect a coastal zone area. The project site is more than 93 miles inland from the California coastline. - joneal4 - 04/13/2022 21:46:47 GMT
Executive Order 11988 - Floodplains	Completed	No effect on floodplain/flood levels and project outside floodplain - Review concluded	Based on the FEMA Flood Insurance Rate Map (FIRM) panel 06067C0207H, 06067C0206H, and 06067C0205H (effective 08/16/2012), all project activities would occur in Zone X, an area of minimal flood hazard. The 8-Step process for floodplains is not required. - joneal4 - 04/13/2022 21:49:03 GMT
Executive Order 11990 - Wetlands	Completed	No effects on wetlands and project outside wetlands - Review concluded	Based on a review of the USFWS National Wetlands Inventory database (reviewed 04/12/2022), project activities are not in nor would they affect wetland resources. The 8-Step process for wetlands is not required. - joneal4 - 04/13/2022 21:49:22 GMT
Executive Order 12898 - Environmental Justice for Low Income and Minority Populations	Completed	Low income or minority population in or near project area	According to the Environmental Protection Agency's Environmental Justice Screening and Mapping Tool (Version 2020), there are no minority or low-income populations within 1 mile of the project area. This

RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

Project HMGP-4558-0007-CA (4558-629-7) (1)

Title: 5% City of Rancho Cordova Pump Station Generators

Environmental Law/ Executive Order	Status	Description	Comment
			project would not result in disproportionately high and adverse impacts on low income or minority populations. - joneal4 - 04/13/2022 21:49:35 GMT
	Completed	No disproportionately high and adverse impact on low income or minority population - Review concluded	
Endangered Species Act (ESA)	Completed	Listed species and/or designated critical habitat present in areas affected directly or indirectly by the federal action	The proposed project will not destroy or adversely modify suitable habitat and will not affect any other listed or proposed species under the jurisdiction of the US Fish and Wildlife Service or the National Marine Fisheries Service (the Services). It is therefore determined the proposed project would have "No Effect" on listed species and consultation with the Services under Section 7 of the Endangered Species Act is not required. See attached No Effect Determination. - joneal4 - 04/13/2022 21:45:10 GMT
	Completed	No effect to species or designated critical habitat (See comments for justification) - Review concluded	
Farmland Protection Policy Act (FPPA)	Completed	Project does not affect designated prime or unique farmland - Review concluded	The project is located in Urban or Built-up Land and Other Land categories according to the California Important Farmland Finder. As a result, the project would not result in the conversion of, or other adverse impacts to, prime or unique farmland. - joneal4 - 04/13/2022 21:47:58 GMT
Fish and Wildlife Coordination Act (FWCA)	Completed	Project does not affect, control, or modify a waterway/body of water - Review concluded	
Migratory Bird Treaty Act (MBTA)	Completed	Project located within a flyway zone	The project is in the Pacific Flyway; however, based on the activities associated with this scope of work, there is no potential for take of migratory birds. - joneal4 - 04/13/2022 21:48:09 GMT
	Completed	Project does not have potential to take migratory birds - Review concluded	
Magnuson-Stevens Fishery Conservation and Management Act (MSA)	Completed	Project not located in or near Essential Fish Habitat - Review concluded	
National Historic Preservation Act (NHPA)	Completed	Applicable executed Programmatic Agreement. Activity meets Programmatic Allowance (enter date and # in comments) - Review concluded	The Undertaking was reviewed by Allison Miller Simonds, who meets the applicable Secretary of the Interior Professional Qualifications in accordance with Stipulation I.B.1.a. of the Programmatic

FEDERAL EMERGENCY MANAGEMENT AGENCY

RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

Project HMGP-4558-0007-CA (4558-629-7) (1)

Title: 5% City of Rancho Cordova Pump Station Generators

Environmental Law/ Executive Order	Status	Description	Comment
			Agreement among the Federal Emergency Management Agency (FEMA), State Historic Preservation Office (SHPO) and California Office of Emergency Services (Cal OES) signed October 29, 2019. The Undertaking complies with Programmatic Allowance II.D.2(a): Generators and Utilities - Installation of generators, HV AC systems, and similar equipment provided activities occur within previously disturbed soils (Appendix B) of the Agreement. Thus, the Undertaking does not require SHPO review or notification per Stipulation II.A.1. of the Agreement. - joneal4 - 04/13/2022 21:45:45 GMT
Wild and Scenic Rivers Act (WSR)	Completed	Project is not along and does not affect Wild and Scenic River - Review concluded	According to the National Wild and Scenic River System database, the closest National Wild and Scenic River is more than 42 miles northeast of the project area. - joneal4 - 04/13/2022 21:48:34 GMT

CONDITIONS

Special Conditions required on implementation of Projects:

The Subgrantee is responsible for complying with all other applicable subparts of the CAA. Failure to comply with these conditions may jeopardize federal assistance including funding. Any change to the approved scope of work will require re-evaluation for compliance with the Clean Air Act.

Source of condition: Clean Air Act (CAA) Monitoring Required: No

Standard Conditions:

Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.

This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize federal funding.

If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.

Standard Mitigation Grant Program (HMGP) Conditions

FEMA Region IX, August, 2018

The following list applies to Recipients and Subrecipients accepting HMGP funds from the Federal Emergency Management Agency (FEMA) of the Department of Homeland Security (DHS):

1. **Applicable Federal, State, and Local Laws and Regulations.** The Recipient/Subrecipient must comply with all applicable Federal, State, and Local laws and regulations, regardless of whether they are on this list or other project documents. DHS financial assistance Recipients and Subrecipients are required to follow the provisions of the State HMGP Administrative Plan, applicable Hazard Mitigation Assistance Uniform Guidance, and Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards located in Title 2 of the Code of Federal Regulations (CFR) Part 200, adopted by DHS in 2 CFR 3002.

2. **Financial Management Systems.** The Recipient and Subrecipient must maintain financial management systems to account for and track funds, as referenced in 2 CFR 200.302.

3. **Match or Cost Share.** Non-federal match or cost share must comply with 2 CFR 200.306, the scope of work (SOW), and any agreements among the Subrecipient, the Recipient, and FEMA.

4. **Budget Changes.** Unanticipated adjustments are permitted within the approved total cost. However, if costs exceed the federal share, the Subrecipient must notify the Governor's Authorized Representative (GAR) of overruns before implementation. The GAR shall submit a written request for approval to FEMA Region IX. The subaward must continue to meet HMGP requirements, including cost effectiveness and cost share. Refer to 2 CFR 200.308 for additional information.

5. **Real Property and Land.** The acquisition, use, and disposition must comply with 2 CFR 200.311.

6. **Equipment.** The acquisition, use, and disposition must comply with 2 CFR 200.313.

7. **Supplies.** Upon project completion, FEMA must be compensated for unused supplies, exceeding $5,000 (fair market value), and not needed for other federal programs. Refer to 2 CFR 200.314.

8. **Procurement.** Procurement procedures must be in conformance with 2 CFR 200.318-320.

9. **Monitoring and Reporting Program Performance.** The Recipient and Subrecipient must submit quarterly progress reports, as referenced in the 2 CFR 200.328 and State HMGP Administrative Plan.

10. **Records Retention.** In accordance with 2 CFR 200.333, financial/ programmatic records related to expenditures must be maintained at least 3 years after the date of Recipient's final expenditure report.

11. **Enforcement and Termination.** If the Recipient or Subrecipient fails to comply with the award or subaward terms, whether stated in a Federal statute or regulation, the State HMGP Administrative Plan, subpplication, a notice of award, an assurance, or elsewhere, FEMA may take one or more of the actions outlined in 2 CFR 200.338, including termination or partial termination of the award or subaward outlined in 2 CFR 200.339.

12. **Allowable Costs.** Funds are to be used for allowable costs in compliance with 2 CFR 200.403, the approved SOW, and any agreements among the Subrecipient, Recipient, and FEMA.

13. **Non-Federal Audit.** The Recipient and Subrecipient are responsible for obtaining audits in accordance with the Single Audit Act of 1984, in compliance with 2 CFR 200.501.

14. **Debarred and Suspended Parties.** Recipients and Subrecipients are subject to the non-procurement debarment and suspension regulations implementing Executive Orders 12549 and 12689, and 2 CFR 180. These regulations restrict federal financial assistance awards, subawards, and contracts with parties that are debarred, suspended, or otherwise excluded from or ineligible for participation in the federal assistance programs or activities.

15. **Equipment Rates.** Rates claimed for use of Subrecipient-owned equipment in excess of the FEMA-approved rates must be approved under State guidelines issued by the State Comptroller's Office or must be certified by the Recipient to include only those costs attributable to equipment usage less any fixed overhead and/or profit.

16. **Duplication of Funding between Public Assistance (PA) and HMGP.** Funding for PA Section 406 and HMGP Section 404 are permitted on the same facility/location, but the activities identified under each program must be distinct with separately accounted funds. At closeout, FEMA may adjust the funding to ensure the Subrecipient was reimbursed for eligible work from only one funding source.

17. **Historic Properties and Cultural Resources.** In compliance with 2 CFR 800, if a potential historic property or cultural resource is discovered during construction, the Subrecipient must cease work in the area and take all reasonable measures to avoid or minimize harm to the discovered property/resource. During construction, the Subrecipient will monitor ground disturbance activity, and if any potential archeological resources are discovered, will immediately cease work in that area, and notify the Recipient and FEMA. Construction in the area may resume with FEMA's written approval after FEMA's consultation, if applicable, with the State Historic Preservation Officer (SHPO).

18. **NEPA and Changes to the Scope of Work (SOW).** To comply with the National Environmental Policy Act (NEPA), and other Laws and Executive Orders, any change to the approved SOW shall be re-evaluated before implementation. Construction associated with a SOW change, prior to FEMA approval, may be ineligible for funding. Acceptance of federal funding requires environmental permits and clearances in compliance with all appropriate federal, state and local laws, and failure to comply may jeopardize funding.

    Within their authority, the Recipient and Subrecipient must use of all practicable means, consistent with other essential policies, to create and maintain productive harmony for people and nature, and fulfill the social, economic, and other needs of present and future generations of Americans.

ATTACHMENT 3

U.S. Department of Homeland Security
FEMA Region 9
1111 Broadway, Suite 1200
Oakland, CA 94607

FEMA

October 7, 2022

Mark S. Ghilarducci, Director
Governor's Authorized Representative
California Governor's Office of Emergency Services
3650 Schriever Avenue
Mather, CA 95655

Reference: Application Approval, HMGP DR-4558-632-033R
City of Rancho Cordova
City of Rancho Cordova Stormwater Detention Basin, Phase 1
FIPS Code: 067-59444, Supplement 57

Dear Mark Ghilarducci:

We approve and issue Hazard Mitigation Grant Program (HMGP) funds for the City of Rancho Cordova (sub-recipient), HMGP DR-4558-632-033R, City of Rancho Cordova Stormwater Detention Basin, Phase 1.

The total project cost for Phase 1 is $450,000.00. As shown in the enclosed Obligation Report - Supplement 57, we are obligating $337,500.00 for the 75 percent Federal share; the 25 percent non-Federal share is $112,500.00. We are obligating $22,500.00 for the 100% Federal share Subrecipient Management Costs. These funds are available in SmartLink for immediate and eligible disbursements. The following is a summary of the approved funding:

Project Phase:	**Federal Share:**	**Non-Federal Share:**	**Total Project Cost:**
Phase 1, Supplement 57	$337,500.00	$112,500.00	$450,000.00
Phase 1, Management Costs	$22,500.00	$0	$22,500.00

This HMGP project approval and obligation of funds are subject to the following conditions:

1. **Scope of Work (SOW)** – Phase 1 will include environmental and historic preservation (EHP) actions, development of the 60 percent project design, specifications, and the required permitting required to build a stormwater detention basin to mitigate flooding along Sunrise Boulevard between Monier Circle and Mechanical Drive. In addition, the City of Rancho Cordova will provide an updated cost estimate and final benefit cost analysis. Overall, the project will mitigate against roadway flooding during 100-year, 24-hour events within the project area.

The following Phase 1 activities and deliverables are expected:

Phase 1 Activity	**Estimated Timeline**
EHP Documents	8 months
60% Designs and Specifications	8 months
Permitting	8 months
Revised Cost Estimate	2 months
Final Benefit Cost Analysis	2 months

Please provide the above-referenced deliverables once completed to the assigned FEMA Hazard Mitigation Assistant (HMA) Specialist for review and inclusion within the official grant file.

2. **Phase 1 Completion Date** – The work schedule included with the project application indicates that Phase 1 will take 15 months to complete; therefore, the Phase 1 completion date is January 7, 2024. All Phase 1 project deliverables must be submitted to the assigned FEMA HMA Specialist by the Phase 1 completion date. Please inform the sub-recipient that work completed after this date is not eligible for Federal funding, and that Federal funds may be de-obligated for work completed outside the completion date when there is no approved time extension.

3. **Phase 2 Approval –** Please inform the sub-recipient that Phase 2 approval is contingent on programmatic review and Environmental and Historical Preservation (EHP) approval. Phase 2 activities may not commence until written approval has been received. Any Phase 2 activities completed prior to approval may be de-obligated. In addition, if Phase 2 is unapproved, Federal funds may be de-obligated for previously completed Phase 1 activities.

4. **Record of Environmental Considerations (REC)** – Phase 1 (Design) of this project has been determined to be Categorically Excluded from the need to prepare either an Environmental Assessment or an Environmental Impact Statement in accordance with FEMA Instruction 108-1-1 and FEMA Directive 108-1-1 as authorized by DHS Instruction Manual 023-01-001-01, Revision 1. Categorical Exclusions A4 (information gathering, data analysis and processing, information dissemination, review, interpretation, and development of documents) and A7 (commitment of resources, personnel, and funding to conduct audits, surveys, and data collection) have been applied. Particular attention should be given to the project conditions before and during project implementation. Failure to comply with these conditions may jeopardize federal assistance including funding. Please reference the enclosed REC for further information.

5. **Standard Conditions** – This project approval is subject to the enclosed *Standard Mitigation Grant Program (HMGP) Conditions,* amended August 2018. Please note that Federal funds may be de-obligated for work that does not comply with these conditions.

If you have any questions, please contact Emily Baumgartner, Sr. Grants Management Specialist, by email emily.baumgartner@fema.dhs.gov, or phone (202) 322-5375.

Sincerely,

for Digitally signed by ROBERT P MCCORD
Date: 2022.10.07 13:38:02 -07'00'

Kathryn Lipiecki
Director, Mitigation Division
FEMA Region 9

Enclosures (3):
Obligation Report - Supplement 57
Record of Environmental Considerations (REC)
Standard Mitigation Grant (HMGP) Conditions

cc: Jennifer Hogan, State Hazard Mitigation Officer, California Governor's Office of Emergency Services
Jacy Hyde, Ph.D., Branch Chief, California Governor's Office of Emergency Services
Robert McCord, Chief, Hazard Mitigation Assistance Branch, FEMA Region 9

HAZARD MITIGATION GRANT PROGRAM

Obligation

Disaster No	FEMA Project No	Amendment No	State Application ID	Action No	Supplemental No	State	Recipient
4558	33 -R	0	632	1	57	CA	Statewide

Subrecipient: Rancho Cordova (Mills)
Project Title : City of Rancho Cordova Stormwater Detention Basin
Subrecipient FIPS Code: 067-59444

Total Amount Previously Allocated	Total Amount Previously Obligated	Total Amount Pending Obligation	Total Amount Available for New Obligation
$337,500.00	$337,500.00	$0.00	$0.00

Project Amount	Subrecipient Management Cost Amount	Total Obligation	IFMIS Date	IFMIS Status	FY
$337,500.00	$22,500.00	$360,000.00	10/06/2022	Accept	2023

Comments

Date: 10/06/2022 User Id: SSCOTT39

Comment: Approved funding for HMGP 4558-632-033R-Sacramento County-Rancho Cordova Stormwater Detention Basin (Phase I)-Federal Share-$337,500.00-Sub Recipient Management Cost-$22,500.00

Authorization

Preparer Name: STEVEN SCOTT
Preparation Date: 10/06/2022

HMO Authorization Name: EMILY BAUMGARTNER
HMO Authorization Date: 10/06/2022

FEDERAL EMERGENCY MANAGEMENT AGENCY

RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

Project HMGP-4558-0033-CA (4558-632-033) (1)

Title: Rancho Cordova Stormwater Detention Basin (Phase 1)

NEPA DETERMINATION

Non Compliant Flag: No
EA Draft Date:
EA Final Date:
EA Public Notice Date:
EA Fonsi
Level: CATEX
EIS Notice of Intent
EIS ROD Date:

Comment The City of Rancho Cordova proposes to construct a stormwater detention basin adjacent to an existing drainage channel to mitigate flooding along Sunrise Boulevard between Monier Circle and Mechanical Drive. The proposed project includes excavation and construction of the detention basin, construction of a weir to connect the detention basin to the drainage channel, and installation of a pump station to convey collected stormwater out of the detention basin. The project will be implemented in phases: Phase 1 for engineering, initial design, and permitting, and Phase 2 for final design and construction. This review covers Phase 1 actions only.

Phase 1 has been determined to be Categorically Excluded from the need to prepare either an Environmental Impact Statement or Environmental Assessment in accordance with FEMA Instruction 108-1-1 and FEMA Directive 108-1-1 as authorized by DHS Instruction Manual 023-01-001-01, Revision 1. Categorical Exclusions a4 (information gathering, data analysis and processing, information dissemination, review, interpretation, and development of documents) and a7 (commitment of resources, personnel, and funding to conduct audits, surveys, and data collection) have been applied. Particular attention should be given to the project conditions before and during project implementation. Failure to comply with these conditions may jeopardize federal assistance including funding. - amillers - 05/09/2022 23:32:49 GMT

CATEX CATEGORIES

Catex Category Code	Description	Selected
a4	(a4) Information gathering, data analysis and processing, information dissemination, review, interpretation, and development of documents. If any of these activities result in proposals for further action, those proposals must be covered by an appropriate CATEX. Examples include but are not limited to: (a) Document mailings, publication and distribution, training and information programs, historical and cultural demonstrations, and public affairs actions. (b) Studies, reports, proposals, analyses, literature reviews; computer modeling; and non-intrusive intelligence gathering activities.	Yes
a7	(a7) The commitment of resources, personnel, and funding to conduct audits, surveys, and data collection of a minimally intrusive nature. If any of these commitments result in proposals for further action, those proposals must be covered by an appropriate CATEX. Examples include, but are not limited to: (a) Activities designed to support the improvement or upgrade management of natural resources, such as surveys for threatened and endangered species, wildlife and wildlife habitat, historic properties, and archeological sites; wetland delineations; timber stand examination; minimal water, air, waste, material and soil sampling; audits, photography, and interpretation. (b) Minimally-intrusive geological, geophysical, and geo-technical activities, including mapping and engineering surveys. (c) Conducting Facility Audits, Environmental Site Assessments and Environmental Baseline Surveys, and (d) Vulnerability, risk, and structural integrity assessments of infrastructure.	Yes

EXTRAORDINARY

Extraordinary Circumstance Code	Description	Selected ?
	No Extraordinary Circumstances were selected	

RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

Project HMGP-4558-0033-CA (4558-632-033) (1)

Title: Rancho Cordova Stormwater Detention Basin (Phase 1)

ENVIRONMENTAL LAW / EXECUTIVE ORDER

Environmental Law/ Executive Order	Status	Description	Comment
Clean Air Act (CAA)	Completed	Project will not result in permanent air emissions - Review concluded	
Coastal Barrier Resources Act (CBRA)	Completed	Project is not on or connected to CBRA Unit or otherwise protected area - Review concluded	
Clean Water Act (CWA)	Completed	Project would not affect any water of the U.S. - Review concluded	
Coastal Zone Management Act (CZMA)	Completed	Project is not located in a coastal zone area and does not affect a coastal zone area - Review concluded	
Executive Order 11988 - Floodplains	Completed	No effect on floodplain/flood levels and project outside floodplain - Review concluded	
Executive Order 11990 - Wetlands	Completed	No effects on wetlands and project outside wetlands - Review concluded	
Executive Order 12898 - Environmental Justice for Low Income and Minority Populations	Completed	Low income or minority population in or near project area	The actions associated with this project will not result in any disproportionally high or adverse impact on low income or minority populations. - amillers - 05/09/2022 23:40:26 GMT
	Completed	No disproportionately high and adverse impact on low income or minority population - Review concluded	
Endangered Species Act (ESA)	Completed	Listed species and/or designated critical habitat present in areas affected directly or indirectly by the federal action	The proposed action to develop initial design and engineering plans and to seek environmental compliance would result in no impacts to endangered species. The proposed scope of work for this program would not destroy or adversely modify suitable habitat and will not affect any other listed or proposed species. It is therefore determined the proposed action would have "No Effect" on listed species and consultation with the Services (USFWS/NMFS) under Section 7 of the Endangered Species Act is not required. - amillers - 05/09/2022 23:34:18 GMT
	Completed	No effect to species or designated critical habitat (See comments for justification) - Review concluded	
Farmland Protection Policy Act (FPPA)	Completed	Project does not affect designated prime or unique farmland - Review concluded	

RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

Project HMGP-4558-0033-CA (4558-632-033) (1)

Title: Rancho Cordova Stormwater Detention Basin (Phase 1)

Environmental Law/ Executive Order	Status	Description	Comment
Fish and Wildlife Coordination Act (FWCA)	Completed	Project does not affect, control, or modify a waterway/body of water - Review concluded	
Migratory Bird Treaty Act (MBTA)	Completed	Project located within a flyway zone	
	Completed	Project does not have potential to take migratory birds - Review concluded	
Magnuson-Stevens Fishery Conservation and Management Act (MSA)	Completed	Project not located in or near Essential Fish Habitat - Review concluded	
National Historic Preservation Act (NHPA)	Completed	Not type of activity with potential to affect historic properties - Review concluded</br>	The Undertaking complies with Stipulation I.A.7.f (assistance provided for planning, studies, design and engineering costs) of the Programmatic Agreement among the Federal Emergency Management Agency (FEMA), State Historic Preservation Office (SHPO), and California Office of Emergency Services (Cal OES), signed October 30, 2019. Thus, the Undertaking does not require SHPO review, and FEMA has no further Section 106 responsibilities in accordance with 36 CFR § 800.3(a)(1). - amillers - 05/09/2022 23:34:07 GMT
Wild and Scenic Rivers Act (WSR)	Completed	Project is not along and does not affect Wild and Scenic River - Review concluded	

CONDITIONS

Standard Conditions:

Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.

This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize federal funding.

If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.

Standard Mitigation Grant Program (HMGP) Conditions

FEMA Region IX, August, 2018

The following list applies to Recipients and Subrecipients accepting HMGP funds from the Federal Emergency Management Agency (FEMA) of the Department of Homeland Security (DHS):

1. **Applicable Federal, State, and Local Laws and Regulations.** The Recipient/Subrecipient must comply with all applicable Federal, State, and Local laws and regulations, regardless of whether they are on this list or other project documents. DHS financial assistance Recipients and Subrecipients are required to follow the provisions of the State HMGP Administrative Plan, applicable Hazard Mitigation Assistance Uniform Guidance, and Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards located in Title 2 of the Code of Federal Regulations (CFR) Part 200, adopted by DHS in 2 CFR 3002.

2. **Financial Management Systems.** The Recipient and Subrecipient must maintain financial management systems to account for and track funds, as referenced in 2 CFR 200.302.

3. **Match or Cost Share.** Non-federal match or cost share must comply with 2 CFR 200.306, the scope of work (SOW), and any agreements among the Subrecipient, the Recipient, and FEMA.

4. **Budget Changes.** Unanticipated adjustments are permitted within the approved total cost. However, if costs exceed the federal share, the Subrecipient must notify the Governor's Authorized Representative (GAR) of overruns before implementation. The GAR shall submit a written request for approval to FEMA Region IX. The subaward must continue to meet HMGP requirements, including cost effectiveness and cost share. Refer to 2 CFR 200.308 for additional information.

5. **Real Property and Land.** The acquisition, use, and disposition must comply with 2 CFR 200.311.

6. **Equipment.** The acquisition, use, and disposition must comply with 2 CFR 200.313.

7. **Supplies.** Upon project completion, FEMA must be compensated for unused supplies, exceeding $5,000 (fair market value), and not needed for other federal programs. Refer to 2 CFR 200.314.

8. **Procurement.** Procurement procedures must be in conformance with 2 CFR 200.318-320.

9. **Monitoring and Reporting Program Performance.** The Recipient and Subrecipient must submit quarterly progress reports, as referenced in the 2 CFR 200.328 and State HMGP Administrative Plan.

10. **Records Retention.** In accordance with 2 CFR 200.333, financial/ programmatic records related to expenditures must be maintained at least 3 years after the date of Recipient's final expenditure report.

11. **Enforcement and Termination.** If the Recipient or Subrecipient fails to comply with the award or subaward terms, whether stated in a Federal statute or regulation, the State HMGP Administrative Plan, subpplication, a notice of award, an assurance, or elsewhere, FEMA may take one or more of the actions outlined in 2 CFR 200.338, including termination or partial termination of the award or subaward outlined in 2 CFR 200.339.

12. **Allowable Costs.** Funds are to be used for allowable costs in compliance with 2 CFR 200.403, the approved SOW, and any agreements among the Subrecipient, Recipient, and FEMA.

13. **Non-Federal Audit.** The Recipient and Subrecipient are responsible for obtaining audits in accordance with the Single Audit Act of 1984, in compliance with 2 CFR 200.501.

14. **Debarred and Suspended Parties.** Recipients and Subrecipients are subject to the non-procurement debarment and suspension regulations implementing Executive Orders 12549 and 12689, and 2 CFR 180. These regulations restrict federal financial assistance awards, subawards, and contracts with parties that are debarred, suspended, or otherwise excluded from or ineligible for participation in the federal assistance programs or activities.

15. **Equipment Rates.** Rates claimed for use of Subrecipient-owned equipment in excess of the FEMA-approved rates must be approved under State guidelines issued by the State Comptroller's Office or must be certified by the Recipient to include only those costs attributable to equipment usage less any fixed overhead and/or profit.

16. **Duplication of Funding between Public Assistance (PA) and HMGP.** Funding for PA Section 406 and HMGP Section 404 are permitted on the same facility/location, but the activities identified under each program must be distinct with separately accounted funds. At closeout, FEMA may adjust the funding to ensure the Subrecipient was reimbursed for eligible work from only one funding source.

17. **Historic Properties and Cultural Resources.** In compliance with 2 CFR 800, if a potential historic property or cultural resource is discovered during construction, the Subrecipient must cease work in the area and take all reasonable measures to avoid or minimize harm to the discovered property/resource. During construction, the Subrecipient will monitor ground disturbance activity, and if any potential archeological resources are discovered, will immediately cease work in that area, and notify the Recipient and FEMA. Construction in the area may resume with FEMA's written approval after FEMA's consultation, if applicable, with the State Historic Preservation Officer (SHPO).

18. **NEPA and Changes to the Scope of Work (SOW).** To comply with the National Environmental Policy Act (NEPA), and other Laws and Executive Orders, any change to the approved SOW shall be re-evaluated before implementation. Construction associated with a SOW change, prior to FEMA approval, may be ineligible for funding. Acceptance of federal funding requires environmental permits and clearances in compliance with all appropriate federal, state and local laws, and failure to comply may jeopardize funding.

    Within their authority, the Recipient and Subrecipient must use of all practicable means, consistent with other essential policies, to create and maintain productive harmony for people and nature, and fulfill the social, economic, and other needs of present and future generations of Americans.

MEMORANDUM

ITEM 9.7.

DATE: November 21, 2022

TO: Honorable Mayor and Council Members

FROM: Stacy Leitner, City Clerk

SUBJECT: **A RESOLUTION APPROVING THE BIENNIAL REVIEW AND UPDATE TO THE CONFLICT OF INTEREST CODE FOR THE CITY OF RANCHO CORDOVA PURSUANT TO THE POLITICAL REFORM ACT**

RECOMMENDATION

Adopt the resolution.

RESULT OF RECOMMENDED ACTION

Filing of the Updated Conflict of Interest Code for the City of Rancho Cordova Designated Employees will result in the City's compliance with the Fair Political Practices Commission requirements.

BACKGROUND

The Political Reform Act of 1974, Government Code Section 81000 et seq., requires all public agencies to adopt and maintain a Conflict of Interest Code. Local agencies must review their Conflict of Interest Code biennially to ensure the Code accurately designates the appropriate positions and requires disclosure by designated officials in the appropriate disclosure category.

The Political Reform Act also requires all positions that make or participate in making governmental decisions be designated. The City Council is the City's code-reviewing body. As the code-reviewing body, the City Council received the 2022 Local Agency Biennial Notice at the October 3, 2022 City Council meeting that indicated an amendment to the Conflict of Interest Code was necessary. A revised Conflict of Interest Code has been prepared and submitted to the City Council for adoption and approval.

The City Council, City Manager, City Attorney, Chief Financial Officer, and Planning Commissioners are not covered under this Code because they are mandated filers subject to the disclosure requirements set forth in Government Code Section 87200.

Attached is a redlined version of the proposed amended Conflict of Interest Code. The proposed revisions are based on the establishment and recognition of new positions that must be designated, the revision of titles of existing positions, and revised disclosure categories. The attachments reference the proposed changes from the last biennial review.

FISCAL IMPACT AND FUNDING SOURCE

There is no Fiscal Impact.

ATTACHMENT(S)

1. Resolution
2. California Code of Regulations
3. Conflict of Interest Code Proposed Changes
4. Conflict of Interest Code - Final

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2020

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA UPDATING THE CITY'S CONFLICT OF INTEREST CODE WHICH INCLUDES THE LIST OF DESIGNATED POSITIONS AND DISCLOSURE CATEGORIES

WHEREAS, the Political Reform Act, Government Code Section 81000 et seq., requires local government agencies to adopt and to publicize conflict of interest codes and review them biennially; and

WHEREAS, the City of Rancho Cordova is an agency subject to the Political Reform Act's code-filing requirements; and

WHEREAS, pursuant to City Council Resolutions 69-2003, 143-2004 177-2006, 113-2008, 106-2010, 112-2016, 123-2018, and 142-2020 the City has previously adopted by reference the conflict of interest code provisions set forth in Title 2 California Code of Regulations Section 18730 and established a Conflict of Interest Code which lists designated positions and required categories of disclosure; and

WHEREAS, the City has determined that changes to the staffing and/or position titles of City positions requires that the City amend its list of designated positions; and

NOW, THEREFORE, the City Council of the City of Rancho Cordova hereby resolves as follows:

Section 1. The City Council hereby approves and adopts by reference the terms of Title 2 California Code of Regulations Section 18730, as it may be amended after a public notice and hearing, and as it may be amended from time to time by the Fair Political Practices Commission to conform to amendments in the Political Reform Act.

Section 2. The provisions of this Resolution and its attachments shall supersede any conflicting provisions and attachments previously adopted by the City Council pertaining to the City of Rancho Cordova's Conflict of Interest Code.

Section 3. Following adoption of the Code, the designated officials, employees, and consultants shall file statements of economic interest and shall disqualify themselves from participation in decisions in which they may have a conflict of interest, in accordance with the Code.

Section 4. Individuals holding designated positions shall file their statements with the City Clerk, which will retain the statements and make the statements available for public inspection and reproduction.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 21st day of November 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Donald Terry, Mayor

ATTEST:

_____
Stacy Leitner, CMC
City Clerk

(Regulations of the Fair Political Practices Commission, Title 2, Division 6, California Code of Regulations)

§ 18730. Provisions of Conflict of Interest Codes.

(a) Incorporation by reference of the terms of this regulation along with the designation of employees and the formulation of disclosure categories in the Appendix referred to below constitute the adoption and promulgation of a conflict of interest code within the meaning of Section 87300 or the amendment of a conflict of interest code within the meaning of Section 87306 if the terms of this regulation are substituted for terms of a conflict of interest code already in effect. A code so amended or adopted and promulgated requires the reporting of reportable items in a manner substantially equivalent to the requirements of article 2 of chapter 7 of the Political Reform Act, Sections 81000, et seq. The requirements of a conflict of interest code are in addition to other requirements of the Political Reform Act, such as the general prohibition against conflicts of interest contained in Section 87100, and to other state or local laws pertaining to conflicts of interest.

(b) The terms of a conflict of interest code amended or adopted and promulgated pursuant to this regulation are as follows:

(1) Section 1. Definitions.

The definitions contained in the Political Reform Act of 1974, regulations of the Fair Political Practices Commission (Regulations 18110, et seq.), and any amendments to the Act or regulations, are incorporated by reference into this conflict of interest code.

(2) Section 2. Designated Employees.

The persons holding positions listed in the Appendix are designated employees. It has been determined that these persons make or participate in the making of decisions which may foreseeably have a material effect on economic interests.

(3) Section 3. Disclosure Categories.

This code does not establish any disclosure obligation for those designated employees who are also specified in Section 87200 if they are designated in this code in that same capacity or if the geographical jurisdiction of this agency is the same as or is wholly included within the jurisdiction in which those persons must report their economic interests pursuant to article 2 of chapter 7 of the Political Reform Act, Sections 87200, et seq.

In addition, this code does not establish any disclosure obligation for any designated employees who are designated in a conflict of interest code for another agency, if all of the following apply:

(A) The geographical jurisdiction of this agency is the same as or is wholly included within the jurisdiction of the other agency;

(B) The disclosure assigned in the code of the other agency is the same as that required under article 2 of chapter 7 of the Political Reform Act, Section 87200; and

(C) The filing officer is the same for both agencies.[1]

Such persons are covered by this code for disqualification purposes only. With respect to all other designated employees, the disclosure categories set forth in the Appendix specify which kinds of economic interests are reportable. Such a designated employee shall disclose in the employee's statement of economic interests those economic interests the employee has which are of the kind described in the disclosure categories to which the employee is assigned in the Appendix. It has been determined that the economic interests set forth in a designated employee's

disclosure categories are the kinds of economic interests which the employee foreseeably can affect materially through the conduct of the employee's office.

(4) Section 4. Statements of Economic Interests: Place of Filing.

The code reviewing body shall instruct all designated employees within its code to file statements of economic interests with the agency or with the code reviewing body, as provided by the code reviewing body in the agency's conflict of interest code.[2]

(5) Section 5. Statements of Economic Interests: Time of Filing.

(A) Initial Statements. All designated employees employed by the agency on the effective date of this code, as originally adopted, promulgated and approved by the code reviewing body, shall file statements within 30 days after the effective date of this code. Thereafter, each person already in a position when it is designated by an amendment to this code shall file an initial statement within 30 days after the effective date of the amendment.

(B) Assuming Office Statements. All persons assuming designated positions after the effective date of this code shall file statements within 30 days after assuming the designated positions, or if subject to State Senate confirmation, 30 days after being nominated or appointed.

(C) Annual Statements. All designated employees shall file statements no later than April 1. If a person reports for military service as defined in the Servicemember's Civil Relief Act, the deadline for the annual statement of economic interests is 30 days following the person's return to office, provided the person, or someone authorized to represent the person's interests, notifies the filing officer in writing prior to the applicable filing deadline that the person is subject to that federal statute and is unable to meet the applicable deadline, and provides the filing officer verification of the person's military status.

(D) Leaving Office Statements. All persons who leave designated positions shall file statements within 30 days after leaving office.

(5.5) Section 5.5. Statements for Persons Who Resign Prior to Assuming Office.

Any person who resigns within 12 months of initial appointment, or within 30 days of the date of notice provided by the filing officer to file an assuming office statement, is not deemed to have assumed office or left office, provided the person did not make or participate in the making of, or use the person's position to influence any decision and did not receive or become entitled to receive any form of payment as a result of the person's appointment. Such persons shall not file either an assuming or leaving office statement.

(A) Any person who resigns a position within 30 days of the date of a notice from the filing officer shall do both of the following:

(1) File a written resignation with the appointing power; and

(2) File a written statement with the filing officer declaring under penalty of perjury that during the period between appointment and resignation the person did not make, participate in the making, or use the position to influence any decision of the agency or receive, or become entitled to receive, any form of payment by virtue of being appointed to the position.

(6) Section 6. Contents of and Period Covered by Statements of Economic Interests.

(A) Contents of Initial Statements.

Initial statements shall disclose any reportable investments, interests in real property and business positions held on the effective date of the code and income received during the 12 months prior to the effective date of the code.

(B) Contents of Assuming Office Statements.

Assuming office statements shall disclose any reportable investments, interests in real property and business positions held on the date of assuming office or, if subject to State Senate confirmation or appointment, on the date of nomination, and income received during the 12 months prior to the date of assuming office or the date of being appointed or nominated, respectively.

(C) Contents of Annual Statements. Annual statements shall disclose any reportable investments, interests in real property, income and business positions held or received during the previous calendar year provided, however, that the period covered by an employee's first annual statement shall begin on the effective date of the code or the date of assuming office whichever is later, or for a board or commission member subject to Section 87302.6, the day after the closing date of the most recent statement filed by the member pursuant to Regulation 18754.

(D) Contents of Leaving Office Statements.

Leaving office statements shall disclose reportable investments, interests in real property, income and business positions held or received during the period between the closing date of the last statement filed and the date of leaving office.

(7) Section 7. Manner of Reporting.

Statements of economic interests shall be made on forms prescribed by the Fair Political Practices Commission and supplied by the agency, and shall contain the following information:

(A) Investment and Real Property Disclosure.

When an investment or an interest in real property[3] is required to be reported,[4] the statement shall contain the following:

1. A statement of the nature of the investment or interest;

2. The name of the business entity in which each investment is held, and a general description of the business activity in which the business entity is engaged;

3. The address or other precise location of the real property;

4. A statement whether the fair market value of the investment or interest in real property equals or exceeds $2,000, exceeds $10,000, exceeds $100,000, or exceeds $1,000,000.

(B) Personal Income Disclosure. When personal income is required to be reported,[5] the statement shall contain:

1. The name and address of each source of income aggregating $500 or more in value, or $50 or more in value if the income was a gift, and a general description of the business activity, if any, of each source;

2. A statement whether the aggregate value of income from each source, or in the case of a loan, the highest amount owed to each source, was $1,000 or less, greater than $1,000, greater than $10,000, or greater than $100,000;

3. A description of the consideration, if any, for which the income was received;

4. In the case of a gift, the name, address and business activity of the donor and any intermediary through which the gift was made; a description of the gift; the amount or value of the gift; and the date on which the gift was received;

5. In the case of a loan, the annual interest rate and the security, if any, given for the loan and the term of the loan.

(C) Business Entity Income Disclosure. When income of a business entity, including income of a sole proprietorship, is required to be reported,[6] the statement shall contain:

1. The name, address, and a general description of the business activity of the business entity;

2. The name of every person from whom the business entity received payments if the filer's pro rata share of gross receipts from such person was equal to or greater than $10,000.

(D) Business Position Disclosure. When business positions are required to be reported, a designated employee shall list the name and address of each business entity in which the employee is a director, officer, partner, trustee, employee, or in which the employee holds any position of management, a description of the business activity in which the business entity is engaged, and the designated employee's position with the business entity.

(E) Acquisition or Disposal During Reporting Period. In the case of an annual or leaving office statement, if an investment or an interest in real property was partially or wholly acquired or disposed of during the period covered by the statement, the statement shall contain the date of acquisition or disposal.

(8) Section 8. Prohibition on Receipt of Honoraria.

(A) No member of a state board or commission, and no designated employee of a state or local government agency, shall accept any honorarium from any source, if the member or employee would be required to report the receipt of income or gifts from that source on the member's or employee's statement of economic interests.

(B) This section shall not apply to any part-time member of the governing board of any public institution of higher education, unless the member is also an elected official.

(C) Subdivisions (a), (b), and (c) of Section 89501 shall apply to the prohibitions in this section.

(D) This section shall not limit or prohibit payments, advances, or reimbursements for travel and related lodging and subsistence authorized by Section 89506.

(8.1) Section 8.1. Prohibition on Receipt of Gifts in Excess of $520.

(A) No member of a state board or commission, and no designated employee of a state or local government agency, shall accept gifts with a total value of more than $520 in a calendar year from any single source, if the member or employee would be required to report the receipt of income or gifts from that source on the member's or employee's statement of economic interests.

(B) This section shall not apply to any part-time member of the governing board of any public institution of higher education, unless the member is also an elected official.

(C) Subdivisions (e), (f), and (g) of Section 89503 shall apply to the prohibitions in this section.

(8.2) Section 8.2. Loans to Public Officials.

(A) No elected officer of a state or local government agency shall, from the date of the election to office through the date that the officer vacates office, receive a personal loan from any officer, employee, member, or consultant of the state or local government agency in which the elected officer holds office or over which the elected officer's agency has direction and control.

(B) No public official who is exempt from the state civil service system pursuant to subdivisions (c), (d), (e), (f), and (g) of Section 4 of Article VII of the Constitution shall, while he or she holds office, receive a personal loan from any officer, employee, member, or consultant of the state or local government agency in which the public official holds office or over which the public official's agency has direction and control. This subdivision shall not apply to loans made to a public official whose duties are solely secretarial, clerical, or manual.

(C) No elected officer of a state or local government agency shall, from the date of the election to office through the date that the officer vacates office, receive a personal loan from

any person who has a contract with the state or local government agency to which that elected officer has been elected or over which that elected officer's agency has direction and control. This subdivision shall not apply to loans made by banks or other financial institutions or to any indebtedness created as part of a retail installment or credit card transaction, if the loan is made or the indebtedness created in the lender's regular course of business on terms available to members of the public without regard to the elected officer's official status.

(D) No public official who is exempt from the state civil service system pursuant to subdivisions (c), (d), (e), (f), and (g) of Section 4 of Article VII of the Constitution shall, while the official holds office, receive a personal loan from any person who has a contract with the state or local government agency to which that elected officer has been elected or over which that elected officer's agency has direction and control. This subdivision shall not apply to loans made by banks or other financial institutions or to any indebtedness created as part of a retail installment or credit card transaction, if the loan is made or the indebtedness created in the lender's regular course of business on terms available to members of the public without regard to the elected officer's official status. This subdivision shall not apply to loans made to a public official whose duties are solely secretarial, clerical, or manual.

(E) This section shall not apply to the following:

1. Loans made to the campaign committee of an elected officer or candidate for elective office.

2. Loans made by a public official's spouse, child, parent, grandparent, grandchild, brother, sister, parent-in-law, brother-in-law, sister-in-law, nephew, niece, aunt, uncle, or first cousin, or the spouse of any such persons, provided that the person making the loan is not acting as an agent or intermediary for any person not otherwise exempted under this section.

3. Loans from a person which, in the aggregate, do not exceed $500 at any given time.

4. Loans made, or offered in writing, before January 1, 1998.

(8.3) Section 8.3. Loan Terms.

(A) Except as set forth in subdivision (B), no elected officer of a state or local government agency shall, from the date of the officer's election to office through the date the officer vacates office, receive a personal loan of $500 or more, except when the loan is in writing and clearly states the terms of the loan, including the parties to the loan agreement, date of the loan, amount of the loan, term of the loan, date or dates when payments shall be due on the loan and the amount of the payments, and the rate of interest paid on the loan.

(B) This section shall not apply to the following types of loans:

1. Loans made to the campaign committee of the elected officer.

2. Loans made to the elected officer by his or her spouse, child, parent, grandparent, grandchild, brother, sister, parent-in-law, brother-in-law, sister-in-law, nephew, niece, aunt, uncle, or first cousin, or the spouse of any such person, provided that the person making the loan is not acting as an agent or intermediary for any person not otherwise exempted under this section.

3. Loans made, or offered in writing, before January 1, 1998.

(C) Nothing in this section shall exempt any person from any other provision of Title 9 of the Government Code.

(8.4) Section 8.4. Personal Loans.

(A) Except as set forth in subdivision (B), a personal loan received by any designated employee shall become a gift to the designated employee for the purposes of this section in the following circumstances:

1. If the loan has a defined date or dates for repayment, when the statute of limitations for filing an action for default has expired.

2. If the loan has no defined date or dates for repayment, when one year has elapsed from the later of the following:

a. The date the loan was made.

b. The date the last payment of $100 or more was made on the loan.

c. The date upon which the debtor has made payments on the loan aggregating to less than $250 during the previous 12 months.

(B) This section shall not apply to the following types of loans:

1. A loan made to the campaign committee of an elected officer or a candidate for elective office.

2. A loan that would otherwise not be a gift as defined in this title.

3. A loan that would otherwise be a gift as set forth under subdivision (A), but on which the creditor has taken reasonable action to collect the balance due.

4. A loan that would otherwise be a gift as set forth under subdivision (A), but on which the creditor, based on reasonable business considerations, has not undertaken collection action. Except in a criminal action, a creditor who claims that a loan is not a gift on the basis of this paragraph has the burden of proving that the decision for not taking collection action was based on reasonable business considerations.

5. A loan made to a debtor who has filed for bankruptcy and the loan is ultimately discharged in bankruptcy.

(C) Nothing in this section shall exempt any person from any other provisions of Title 9 of the Government Code.

(9) Section 9. Disqualification.

No designated employee shall make, participate in making, or in any way attempt to use the employee's official position to influence the making of any governmental decision which the employee knows or has reason to know will have a reasonably foreseeable material financial effect, distinguishable from its effect on the public generally, on the official or a member of the official's immediate family or on:

(A) Any business entity in which the designated employee has a direct or indirect investment worth $2,000 or more;

(B) Any real property in which the designated employee has a direct or indirect interest worth $2,000 or more;

(C) Any source of income, other than gifts and other than loans by a commercial lending institution in the regular course of business on terms available to the public without regard to official status, aggregating $500 or more in value provided to, received by or promised to the designated employee within 12 months prior to the time when the decision is made;

(D) Any business entity in which the designated employee is a director, officer, partner, trustee, employee, or holds any position of management; or

(E) Any donor of, or any intermediary or agent for a donor of, a gift or gifts aggregating $500 or more provided to, received by, or promised to the designated employee within 12 months prior to the time when the decision is made.

(9.3) Section 9.3. Legally Required Participation.

No designated employee shall be prevented from making or participating in the making of any decision to the extent the employee's participation is legally required for the decision to be made.

The fact that the vote of a designated employee who is on a voting body is needed to break a tie does not make the employees' participation legally required for purposes of this section.

(9.5) Section 9.5. Disqualification of State Officers and Employees.

In addition to the general disqualification provisions of section 9, no state administrative official shall make, participate in making, or use the official's position to influence any governmental decision directly relating to any contract where the state administrative official knows or has reason to know that any party to the contract is a person with whom the state administrative official, or any member of the official's immediate family has, within 12 months prior to the time when the official action is to be taken:

(A) Engaged in a business transaction or transactions on terms not available to members of the public, regarding any investment or interest in real property; or

(B) Engaged in a business transaction or transactions on terms not available to members of the public regarding the rendering of goods or services totaling in value $1,000 or more.

(10) Section 10. Disclosure of Disqualifying Interest.

When a designated employee determines that the employee should not make a governmental decision because the employee has a disqualifying interest in it, the determination not to act may be accompanied by disclosure of the disqualifying interest.

(11) Section 11. Assistance of the Commission and Counsel.

Any designated employee who is unsure of the duties under this code may request assistance from the Fair Political Practices Commission pursuant to Section 83114 and Regulations 18329 and 18329.5 or from the attorney for the employee's agency, provided that nothing in this section requires the attorney for the agency to issue any formal or informal opinion.

(12) Section 12. Violations.

This code has the force and effect of law. Designated employees violating any provision of this code are subject to the administrative, criminal and civil sanctions provided in the Political Reform Act, Sections 81000-91014. In addition, a decision in relation to which a violation of the disqualification provisions of this code or of Section 87100 or 87450 has occurred may be set aside as void pursuant to Section 91003.

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[1] Designated employees who are required to file statements of economic interests under any other agency's conflict of interest code, or under article 2 for a different jurisdiction, may expand their statement of economic interests to cover reportable interests in both jurisdictions, and file copies of this expanded statement with both entities in lieu of filing separate and distinct statements, provided that each copy of such expanded statement filed in place of an original is signed and verified by the designated employee as if it were an original. See Section 81004.

[2] See Section 81010 and Regulation 18115 for the duties of filing officers and persons in agencies who make and retain copies of statements and forward the originals to the filing officer.

[3] For the purpose of disclosure only (not disqualification), an interest in real property does not include the principal residence of the filer.

[4] Investments and interests in real property which have a fair market value of less than $2,000 are not investments and interests in real property within the meaning of the Political Reform Act. However, investments or interests in real property of an individual include those held by the individual's spouse and dependent children as well as a pro rata share of any investment or interest in real property of any business entity or trust in which the individual, spouse and dependent children own, in the aggregate, a direct, indirect or beneficial interest of 10 percent or greater.

[5] A designated employee's income includes the employee's community property interest in the income of the employee's spouse but does not include salary or reimbursement for expenses received from a state, local or federal government agency.

[6] Income of a business entity is reportable if the direct, indirect or beneficial interest of the filer and the filer's spouse in the business entity aggregates a 10 percent or greater interest. In addition, the disclosure of persons who are clients or customers of a business entity is required only if the clients or customers are within one of the disclosure categories of the filer.

Note: Authority cited: Section 83112, Government Code. Reference: Sections 87103(e), 87300-87302, 89501, 89502 and 89503, Government Code.

HISTORY

1. New section filed 4-2-80 as an emergency; effective upon filing (Register 80, No. 14). Certificate of Compliance included.

2. Editorial correction (Register 80, No. 29).

3. Amendment of subsection (b) filed 1-9-81; effective thirtieth day thereafter (Register 81, No. 2).

4. Amendment of subsection (b)(7)(B)1. filed 1-26-83; effective thirtieth day thereafter (Register 83, No. 5).

5. Amendment of subsection (b)(7)(A) filed 11-10-83; effective thirtieth day thereafter (Register 83, No. 46).

6. Amendment filed 4-13-87; operative 5-13-87 (Register 87, No. 16).

7. Amendment of subsection (b) filed 10-21-88; operative 11-20-88 (Register 88, No. 46).

8. Amendment of subsections (b)(8)(A) and (b)(8)(B) and numerous editorial changes filed 8-28-90; operative 9-27-90 (Reg. 90, No. 42).

9. Amendment of subsections (b)(3), (b)(8) and renumbering of following subsections and amendment of Note filed 8-7-92; operative 9-7-92 (Register 92, No. 32).

10. Amendment of subsection (b)(5.5) and new subsections (b)(5.5)(A)-(A)(2) filed 2-4-93; operative 2-4-93 (Register 93, No. 6).

11. Change without regulatory effect adopting Conflict of Interest Code for California Mental Health Planning Council filed 11-22-93 pursuant to title 1, section 100, California Code of Regulations (Register 93, No. 48). Approved by Fair Political Practices Commission 9-21-93.

12. Change without regulatory effect redesignating Conflict of Interest Code for California Mental Health Planning Council as chapter 62, section 55100 filed 1-4-94 pursuant to title 1, section 100, California Code of Regulations (Register 94, No. 1).

13. Editorial correction adding History 11 and 12 and deleting duplicate section number (Register 94, No. 17).

14. Amendment of subsection (b)(8), designation of subsection (b)(8)(A), new subsection (b)(8)(B), and amendment of subsections (b)(8.1)-(b)(8.1)(B), (b)(9)(E) and Note filed 3-14-95; operative 3-14-95 pursuant to Government Code section 11343.4(d) (Register 95, No. 11).

15. Editorial correction inserting inadvertently omitted language in footnote 4 (Register 96, No. 13).

16. Amendment of subsections (b)(8)(A)-(B) and (b)(8.1)(A), repealer of subsection (b)(8.1)(B), and amendment of subsection (b)(12) filed 10-23-96; operative 10-23-96 pursuant to Government Code section 11343.4(d) (Register 96, No. 43).

17. Amendment of subsections (b)(8.1) and (9)(E) filed 4-9-97; operative 4-9-97 pursuant to Government Code section 11343.4(d) (Register 97, No. 15).

18. Amendment of subsections (b)(7)(B)5., new subsections (b)(8.2)-(b)(8.4)(C) and amendment of Note filed 8-24-98; operative 8-24-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 35).

19. Editorial correction of subsection (a) (Register 98, No. 47).

20. Amendment of subsections (b)(8.1), (b)(8.1)(A) and (b)(9)(E) filed 5-11-99; operative 5-11-99 pursuant to Government Code section 11343.4(d) (Register 99, No. 20).

21. Amendment of subsections (b)(8.1)-(b)(8.1)(A) and (b)(9)(E) filed 12-6-2000; operative 1-1-2001 pursuant to the 1974 version of Government Code section 11380.2 and Title 2, California Code of Regulations, section 18312(d) and (e) (Register 2000, No. 49).

22. Amendment of subsections (b)(3) and (b)(10) filed 1-10-2001; operative 2-1-2001. Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements) (Register 2001, No. 2).

23. Amendment of subsections (b)(7)(A)4., (b)(7)(B)1.-2., (b)(8.2)(E)3., (b)(9)(A)-(C) and footnote 4. filed 2-13-2001. Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements) (Register 2001, No. 7).

24. Amendment of subsections (b)(8.1)-(b)(8.1)(A) filed 1-16-2003; operative 1-1-2003. Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District,

nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements) (Register 2003, No. 3).

25. Editorial correction of History 24 (Register 2003, No. 12).

26. Editorial correction removing extraneous phrase in subsection (b)(9.5)(B) (Register 2004, No. 33).

27. Amendment of subsections (b)(2)-(3), (b)(3)(C), (b)(6)(C), (b)(8.1)-(b)(8.1)(A), (b)(9)(E) and (b)(11)-(12) filed 1-4-2005; operative 1-1-2005 pursuant to Government Code section 11343.4 (Register 2005, No. 1).

28. Amendment of subsection (b)(7)(A)4. filed 10-11-2005; operative 11-10-2005 (Register 2005, No. 41).

29. Amendment of subsections (a), (b)(1), (b)(3), (b)(8.1), (b)(8.1)(A) and (b)(9)(E) filed 12-18-2006; operative 1-1-2007. Submitted to OAL pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements) (Register 2006, No. 51).

30. Amendment of subsections (b)(8.1)-(b)(8.1)(A) and (b)(9)(E) filed 10-31-2008; operative 11-30-2008. Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements and not subject to procedural or substantive review by OAL) (Register 2008, No. 44).

31. Amendment of section heading and section filed 11-15-2010; operative 12-15-2010. Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of*

Administrative Law, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements and not subject to procedural or substantive review by OAL) (Register 2010, No. 47).

32. Amendment of section heading and subsections (a)-(b)(1), (b)(3)-(4), (b)(5)(C), (b)(8.1)-(b)(8.1)(A) and (b)(9)(E) and amendment of footnote 1 filed 1-8-2013; operative 2-7-2013. Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements and not subject to procedural or substantive review by OAL) (Register 2013, No. 2).

33. Amendment of subsections (b)(8.1)-(b)(8.1)(A), (b)(8.2)(E)3. and (b)(9)(E) filed 12-15-2014; operative 1-1-2015 pursuant to section 18312(e)(1)(A), title 2, California Code of Regulations. Submitted to OAL for filing and printing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements) (Register 2014, No. 51).

34. Redesignation of portions of subsection (b)(8)(A) as new subsections (b)(8)(B)-(D), amendment of subsections (b)(8.1)-(b)(8.1)(A), redesignation of portions of subsection (b)(8.1)(A) as new subsections (b)(8.1)(B)-(C) and amendment of subsection (b)(9)(E) filed 12-1-2016; operative 12-31-2016 pursuant to Cal. Code Regs. tit. 2, section 18312(e). Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision,

April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements and not subject to procedural or substantive review by OAL) (Register 2016, No. 49).

35. Amendment of subsections (b)(8.1)-(b)(8.1)(A) and (b)(9)(E) filed 12-12-2018; operative 1-11-2019 pursuant to Cal. Code Regs., tit. 2, section 18312(e). Submitted to OAL for filing and printing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements and not subject to procedural or substantive review by OAL) (Register 2018, No. 50).

36. Amendment of subsections (b)(8.1)-(8.1)(A) filed 12-23-2020; operative 1-1-2021 pursuant to Cal. Code Regs., tit. 2, section 18312(e). Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974 Administrative Procedure Act rulemaking requirements and not subject to procedural or substantive review by OAL) (Register 2020, No. 52).

37. Amendment of subsections (b)(3)(C), (b)(5)(C), (b)(5.5), (b)(5.5)(A)(2), (b)(7)(D), (b)(8)(A), (b)(8.1)(A), (b)(8.2)(A), (b)(8.2)(C)-(D), (b)(8.3)(A), (b)(9), (b)(9.3), (b)(9.5), (b)(10) and (b)(11) and footnote 5 filed 5-12-2021; operative 6-11-2021 pursuant to Cal. Code Regs., tit. 2, section 18312(e). Submitted to OAL for filing pursuant to *Fair Political Practices Commission v. Office of Administrative Law*, 3 Civil C010924, California Court of Appeal, Third Appellate District, nonpublished decision, April 27, 1992 (FPPC regulations only subject to 1974

Administrative Procedure Act rulemaking requirements and not subject to procedural or substantive review by OAL) (Register 2021, No. 20).

CONFLICT OF INTEREST CODE FOR THE CITY OF RANCHO CORDOVA

The Political Reform Act (Government Code Section 81000, et. seq.) requires state and local government agencies to adopt and promulgate conflict-of-interest codes. The Fair Political Practices Commission has adopted a regulation (2 California Code of Regulations Section 18730) that contains the terms of a standard conflict of interest code and may be incorporated by reference in an agency's code. After public notice and hearing, the standard code may be amended by the Fair Political Practices Commission (FPPC) to conform to amendments in the Political Reform Act. Therefore, the terms of 2 California Code of Regulations Section 18730 and any amendments to it duly adopted by the Fair Political Practices Commission are hereby incorporated by reference. This regulation and the attached Appendices designating positions and establishing disclosure requirements shall constitute the conflict-of-interest code of the City of Rancho Cordova.

Individuals holding designated positions shall file their statements with the City Clerk, which will retain the statements and make the statements available for public inspection and reproduction. (Government Code Section 81088). Upon receipt of the statement for Public Officials specified in Government Code Section 87200, the City shall make and retain copies and forward the originals to the Fair Political Practices Commission.

DESIGNATED POSITIONS

The positions listed below constitute the list of designated positions required by the City of Rancho Cordova Conflict of Interest Code (2 Cal. Code of Regs. Section 18730). The individual occupying each position is deemed to make, or participate in the making of, decisions that may have a material effect on a financial interest of that individual. The individuals occupying the designated positions shall disclose their economic interests in accordance with the corresponding disclosure categories, defined in Section II below.

POSITION	CATEGORY
Accountant	2
Administrative Services Director	1
Animal Services Officer I/II	2
Assistant Building Official	1
Assistant City Attorney	1
Assistant City Clerk	1
Assistant City Manager	1
Assistant Planner	2
Assistant Police Chief	1
Associate Planner	2
Assistant to the City Manager	1
Building Inspector I/II	2
Business Systems Analyst	1
Building Official	1
City Clerk	1
City Engineer/Public Works Director	1
Code Enforcement Officer I/II	2

POSITION	CATEGORY
Code Enforcement Supervisor	2
Communications, Legislative Affairs, & Community Engagement Director	1
Community Development Director	1
Community Engagement Analyst I/II	3
Community Enhancement Analyst (Management Analyst)	2
Community Enhancement Technician	2
Deputy City Attorney	1
Deputy City Manager	1
Economic Development Director	1
Economic Development Analyst	2
Economic Development Manager	12
Engineering Manager	2
Facilities Services Manager	2
Facilities Services Supervisor	2
Finance Manager	1
Housing and Neighborhood Development Analyst II	2
Human Resources Manager	1
Information Technology Director	1
Information Technology Analyst II	2
Information Technology Manager	1
Maintenance & Operations Supervisor	2
Management Analyst I/II	2
Neighborhood Services Manager	1
Neighborhood Services Supervisor	1
Planning Manager	1
Principal Planner	12
Police Chief	1
Principal Building Inspector	2
Principal Civil Engineer	1
Public Works Division Manager-Maintenance and Operations	1
Reinvestment Analyst	1
Senior Animal Services Officer	1
Senior Civil Engineer	21
Senior Code Enforcement Officer	1
Senior Community Enhancement Analyst	1
Senior Engineer	2
Senior Finance Analyst	2
Senior Human Resources Analyst	1

POSITION	CATEGORY
Senior Information Technology Analyst	1
Senior Management Analyst	1
Senior Planner	1~~2~~
Senior Transportation Planner	2
Supervising Building Inspector	2

Consultants shall be designated on a case-by-case basis, depending upon the nature of their services.

BOARDS AND COMMISSIONS	CATEGORY
Community Enhancement and Investment Fund Oversight Board Member	1

PUBLIC OFFICIALS SPECIFIED IN GOVERNMENT CODE SECTION 87200

Members of the Rancho Cordova City Council
City Manager
City Attorney
Administrative Services Director
Members of the Rancho Cordova Planning Commission

DISCLOSURE CATEGORIES

Disclosure Category 1
Individuals in this category shall disclose all interests in real property located within the City and all investments in, business positions with, and sources of income from entities having an interest in real property within the City or entities which are of the type to do business with or within the City.

Disclosure Category 2
Individuals in this category shall disclose all investments and business positions in business entities, and income from sources which: (1) are contractors or subcontractors engaged in the performance of work or services of the type utilized by the City, or (2) which manufacture or sell supplies, material, machinery or equipment of the type utilized by the City.

Disclosure Category 3
Individuals in this category shall disclose all investments and business positions in business entities, and income from sources which: (1) are contractors or subcontractors engaged in the performance of work or services of the type utilized by the designated employee's department, or (2) which manufacture or sell supplies, material, machinery or equipment of the type utilized by the designated employee's department.

CONFLICT OF INTEREST CODE FOR THE CITY OF RANCHO CORDOVA

The Political Reform Act (Government Code Section 81000, et. seq.) requires state and local government agencies to adopt and promulgate conflict-of-interest codes. The Fair Political Practices Commission has adopted a regulation (2 California Code of Regulations Section 18730) that contains the terms of a standard conflict of interest code and may be incorporated by reference in an agency's code. After public notice and hearing, the standard code may be amended by the Fair Political Practices Commission (FPPC) to conform to amendments in the Political Reform Act. Therefore, the terms of 2 California Code of Regulations Section 18730 and any amendments to it duly adopted by the Fair Political Practices Commission are hereby incorporated by reference. This regulation and the attached Appendices designating positions and establishing disclosure requirements shall constitute the conflict-of-interest code of the City of Rancho Cordova.

Individuals holding designated positions shall file their statements with the City Clerk, which will retain the statements and make the statements available for public inspection and reproduction. (Government Code Section 81088). Upon receipt of the statement for Public Officials specified in Government Code Section 87200, the City shall make and retain copies and forward the originals to the Fair Political Practices Commission.

DESIGNATED POSITIONS

The positions listed below constitute the list of designated positions required by the City of Rancho Cordova Conflict of Interest Code (2 Cal. Code of Regs. Section 18730). The individual occupying each position is deemed to make, or participate in the making of, decisions that may have a material effect on a financial interest of that individual. The individuals occupying the designated positions shall disclose their economic interests in accordance with the corresponding disclosure categories, defined in Section II below.

POSITION	CATEGORY
Accountant	2
Administrative Services Director	1
Animal Services Officer I/II	2
Assistant Building Official	1
Assistant City Attorney	1
Assistant City Clerk	1
Assistant City Manager	1
Assistant Planner	2
Assistant Police Chief	1
Associate Planner	2
Assistant to the City Manager	1
Building Inspector I/II	2
Business Systems Analyst	1
Building Official	1
City Clerk	1
City Engineer/Public Works Director	1
Code Enforcement Officer I/II	2

POSITION	CATEGORY
Code Enforcement Supervisor	2
Communications, Legislative Affairs, & Community Engagement Director	1
Community Development Director	1
Community Engagement Analyst I/II	3
Community Enhancement Analyst (Management Analyst)	2
Community Enhancement Technician	2
Deputy City Attorney	1
Deputy City Manager	1
Economic Development Director	1
Economic Development Analyst	2
Economic Development Manager	1
Engineering Manager	2
Facilities Services Manager	2
Facilities Services Supervisor	2
Finance Manager	1
Housing and Neighborhood Development Analyst II	2
Human Resources Manager	1
Information Technology Director	1
Information Technology Analyst II	2
Information Technology Manager	1
Maintenance & Operations Supervisor	2
Management Analyst I/II	2
Neighborhood Services Manager	1
Neighborhood Services Supervisor	1
Planning Manager	1
Principal Planner	1
Police Chief	1
Principal Building Inspector	2
Principal Civil Engineer	1
Public Works Division Manager-Maintenance and Operations	1
Reinvestment Analyst	1
Senior Animal Services Officer	1
Senior Civil Engineer	2
Senior Code Enforcement Officer	1
Senior Community Enhancement Analyst	1
Senior Engineer	2
Senior Finance Analyst	2
Senior Human Resources Analyst	1

POSITION	**CATEGORY**
Senior Information Technology Analyst	1
Senior Management Analyst	1
Senior Planner	1
Senior Transportation Planner	2
Supervising Building Inspector	2

Consultants shall be designated on a case-by-case basis, depending upon the nature of their services.

BOARDS AND COMMISSIONS	**CATEGORY**
Community Enhancement and Investment Fund Oversight Board Member	1

PUBLIC OFFICIALS SPECIFIED IN GOVERNMENT CODE SECTION 87200

Members of the Rancho Cordova City Council
City Manager
City Attorney
Administrative Services Director
Members of the Rancho Cordova Planning Commission

DISCLOSURE CATEGORIES

Disclosure Category 1
Individuals in this category shall disclose all interests in real property located within the City and all investments in, business positions with, and sources of income from entities having an interest in real property within the City or entities which are of the type to do business with or within the City.

Disclosure Category 2
Individuals in this category shall disclose all investments and business positions in business entities, and income from sources which: (1) are contractors or subcontractors engaged in the performance of work or services of the type utilized by the City, or (2) which manufacture or sell supplies, material, machinery or equipment of the type utilized by the City.

Disclosure Category 3
Individuals in this category shall disclose all investments and business positions in business entities, and income from sources which: (1) are contractors or subcontractors engaged in the performance of work or services of the type utilized by the designated employee's department, or (2) which manufacture or sell supplies, material, machinery or equipment of the type utilized by the designated employee's department.

MEMORANDUM

ITEM 9.8.

DATE: November 21, 2022

TO: Honorable Mayor and Council Members

FROM: Megan Siren, Senior Management Analyst
Edgar Medina, Principal Engineer

SUBJECT: **A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE CONSTRUCTION CONTRACT AMENDMENT NO. 2021-256-7 WITH Z SQUARED INC. TO INCREASE THE CONTRACT AMOUNT FROM $5,745,297 TO AN AMOUNT NOT TO EXCEED $5,890,443 FOR THE CONSTRUCTION OF THE RANCHO CORDOVA YOUTH CENTER PROJECT**

RECOMMENDATION

Adopt the Resolution

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would authorize the City Manager to execute Contract No. 2021-256-7 with Z Squared, Inc. increasing the contract amount from $5,745,297 to an amount not to exceed $5,890,443 for construction of the Rancho Cordova Youth Center.

BACKGROUND

The Center of Praise Ministries, Inc. and the founding and Senior Pastor Bishop Parnell Lovelace, Jr. graciously offered to partner with the City of Rancho Cordova to establish a Rancho Cordova Youth Center at their property located at 10455 Investment Circle. With the City Council authorizing the lease agreement with Center of Praise Ministries, Inc. in January 2020, the location for the Rancho Cordova Youth Center was solidified at 10455 Investment Circle after many efforts over many years to bring a Youth Center to the community.

The Rancho Cordova Youth Center project includes interior modifications, including new mechanical units, electrical modifications, new windows, kitchen modifications, bathroom modifications, Americans with Disabilities Act (ADA) modifications, security, parking lot overlay, exterior fencing, covered area for seating, multi-sport turf field and an outdoor basketball court.

The City Council awarded the construction contract on July 19, 2021 to Z Squared Construction, Inc. in the amount of $4,511,000 with construction beginning in August 2021. On June 6, 2022, the City Council approved contract change order number 4 that amended the contract to $5,345,286. The total value of change orders numbers 1 through 4 was $834,286 and included the following work: modifications related to extra debris/tree removal, replacement of

the mechanical screen walls, additional concrete work, new backflow prevention devices, fence modifications, electrical breakers, stucco sliding and trim and other repairs as needed as related to utilities, audio visual equipment, upgrades to existing switchboard, power distribution equipment and parking lot overlay modifications.

Per Rancho Cordova Municipal Code, Section 3.60.110 C, the City Manager has given the authority to approve change orders up to 10% of the contract value. Two change orders have been approved since June 6, 2022 under the City Manager's signature authority for work, including additional conduit, mechanical well modifications, rerouting of conflicting utilities, new storefront system at entrance, addition of perforated metal panels for fence, fence post modifications, installation of new switchboard and soffit modifications. The total value of change orders numbers 5 and 6 was $399,602 increasing the contract value to a current total of $5,744,588.

Contract Change Order No. 7 covers gutter system modifications, additional lighting, flooring modifications, shade structure modifications, panic hardware required by Sac Metro Fire, and structural modifications to the trash enclosure. Contract Change Order No. 7 is valued at $145,146 which exceeds the City Manager's signature authority, thus requiring Council approval. City Staff has been coordinating, reviewing and finalizing the additional scope and costs with the Contractor. Staff deem the scope necessary to complete the project and the costs to be within industry standards.

FISCAL IMPACT AND FUNDING SOURCE

The total project budget for the capital improvements is $7.995 million, consisting of $1.8 million from Capital Facility Projects Fund, $4.495 million from Community Enhancement Fund, $1 million from the Community Investment Fund and $500,000 from Park Renovation Fund.

This project is included in the City's current approved Capital Improvement Plan and in the FY 21/23 budget.

ATTACHMENT(S)

1. Resolution
2. Change Order No. 7

CITY OF RANCHO CORDOVA

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, AUTHORIZING THE CITY MANAGER TO EXECUTE CONTRACT CHANGE ORDER NO. 7 IN THE AMOUNT OF $145,146 WITH Z SQUARED CONSTRUCTION, INC. AND TO INCREASE THE CONTRACT AMOUNT FROM $5,745,297 TO AN AMOUNT NOT TO EXCEED $5,890,443 FOR THE CONSTRUCTION OF THE RANCHO CORDOVA YOUTH CENTER

WHEREAS, on July 19, 2021 the City awarded the Rancho Cordova Youth Center Project to the lowest responsive bidder, Z Squared Construction, Inc. in the amount of $4,511,000 (Contract 2021-256); and

WHEREAS, previously approved Contract Change Orders No. 1, 2 and 3 in the total amount of $379,409 increased the construction contract to $4,890,409; and

WHEREAS, City Council authorized Contract Change Order No. 4 in the amount of $455,286 and increased the construction contract to $5,345,286 on June 6, 2022; and

WHEREAS, previously approved Contract Change Orders No. 5 and 6 in the total amount of $399,602 increased the construction contract to $5,745,297;and

WHEREAS, it will be necessary to modify the plans and specifications with Contract Change Order No. 7 in the total amount of $145,146 and increase the construction contract to $5,890,443; and

WHEREAS, the work covers gutter system modifications, additional lighting, flooring modifications, shade structure modifications, panic hardware required by Sac Metro Fire, and structural modifications to the trash enclosure; and

WHEREAS, Change Order No. 7 exceeds the amount the City Manager is authorized to approve; and

WHEREAS, this project was reviewed under the requirements of the California Environmental Quality Act as part of the City's Capital Improvement Plan via Council approval of Resolution 117-2021 on July 19, 2021 and is exempt from further review.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does hereby approve Contract Change Order No. 7 in the amount of $145,146 with Z Squared Construction, Inc. and to increase the contract amount from $5,745,297 to an amount not to exceed $5,890,443 for the construction of the Rancho Cordova Youth Center.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 21st day of November 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Donald Terry, Mayor

Stacy Leitner, CMC
City Clerk

Project Name:
Rancho Cordova
Youth Center Project

CITY OF RANCHO CORDOVA

Contract Change Order No. 7

City Contract No. 2021-256

To: Z Squared Construction. You are hereby directed to make the herein described changes from the plans and specifications or do the following described work not included in the plans and specifications on this contract.

Description of work to be done, quantities and prices to be paid. Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time.

Change requested by: **Engineer**

Item No. 1	PCO# 84 Add a rain gutter system to the east and west sides of the building. Payment for this work is at agreed lump sum.	**INCREASE:**	$21,748.00
Item No. 2	PCO# 89 Add Click to enter, Knox key switch, panic hardware to pedestrian gates and a push button keypad to the entrance gate assembly. Payment for this work is at agreed lump sum.	**INCREASE:**	$8,824.00
Item No. 3	PCO# 104 Apply paint to the existing shed. Payment for this work is at agreed lump sum.	**INCREASE:**	$3,138.00
Item No. 4	PCO# 105 Provide and install recessed light fixtures at the flagpole. Payment for this work is at agreed lump sum.	**INCREASE:**	$5,315.00
Item No. 6	PCO# 116 Add floor leveling and floor moisture protection to the existing concrete floors that receive luxury vinyl tile. Payment for this work is at agreed lump sum.	**INCREASE:**	$41,778.00
Item No. 7	PCO# 117 Install additional supports for the fabric cover at the shade structure. Payment for this work is at agreed lump sum.	**INCREASE:**	$34,178.00
Item No. 8	PCO# 119 Add additional structural members to support the roof overhang at the trash enclosure. Payment for this work is at agreed lump sum.	**INCREASE:**	$25,704.00
Item No. 9	PCO# 120 Provide and install a new post indicator valve at the fire water service to the building. Payment for this work is at agreed lump sum.	**INCREASE:**	$3,712.00
Item No. 10	PCO# 122 Repair the leak in the existing gas piping. Payment for this work is at agreed lump sum.	**INCREASE:**	$ 749.00

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TOTAL COST OF THIS CCO: $145,146.00

Project Name:
Rancho Cordova
Youth Center Project

CITY OF RANCHO CORDOVA

Contract Change Order No. 7

City Contract No. 2021-256

Authority: Resolution #117-2021, #88-2022
Contract Summation:

Original Contract: **$4,511,000.00** Total Change Orders: **$1,379,443.00** New Contract Cost Total: **$5,890,443.00**

By reason of this order the time of completion will be adjusted as follows: **ANY ADDITIONAL COMPENSABLE/NON-COMPENSABLE WORKING DAYS TO BE NEGOTIATED BETWEEN CONTRACTOR AND CITY AND WILL BE CAPTURED IN A FUTURE CHANGE ORDER**

Submitted by: _____ Construction Manager/ Resident Engineer City of Rancho Cordova Date: _____

Recommend Approval by: _____ Project Manager City of Rancho Cordova Date: _____

Approved by: _____ Public Works Director City of Rancho Cordova Date: _____

We, the undersigned Contractor, have given careful consideration to the change proposed and all of its impacts, both direct and indirect, and hereby agree, if this proposal is approved, that we will provide all equipment, furnish all materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices and time extensions shown above.

Acceptance Date: _____ Contractor: _____

By: _____ Title: _____

If the Contractor does not sign acceptance of this order, his attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Original to: *Contractor*
City Clerk

Copies to: *Resident Engineer*
City Project Manager
Project Engineer

_____
City Manager or Designee
City of Rancho Cordova

MEMORANDUM

ITEM 9.9.

DATE: November 21, 2022

TO: Honorable Mayor and Council Members

FROM: Albert Stricker, Public Works Director
Dalia Fadl, Principal Engineer

SUBJECT: **A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE CONTRACT NO. 2022-245 IN AN AMOUNT NOT TO EXCEED $500,000 WITH MCE CORPORATION FOR STORMWATER PUMP STATION OPERATIONS AND MAINTENANCE SERVICES**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would authorize the City Manager to execute Contract No. 2022-245 with MCE Corporation in the amount of $500,000 for the provision of stormwater pump station operations and maintenance services.

BACKGROUND

The work conducted under this contract includes routine inspections, operations, and maintenance; repair and upgrade coordination; and on-call emergency response to ensure the proper operation and performance of the City's six stormwater pump stations.

Proposals were solicited on the City's Website and CIPList.com on August 31, 2022. The City issued two addendums in response to questions received before the deadline for written questions. Interested firms were invited to attend pump station site visits on September 26, 2022 and September 28, 2022. Two proposals were received before the September 30, 2022 proposal deadline. The submitted proposals were reviewed and determined to be complete. During the proposal evaluation process, the City invited both firms for interviews on the week of October 10, 2022. MCE Corporation was selected as the most responsive and responsible proposal.

FISCAL IMPACT AND FUNDING SOURCE

Funding for the contract will be from the City's Stormwater Utility Fee. There is no impact to the general fund.

ATTACHMENT(S)

1. Resolution

2. Contract No. 2022-245

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, AUTHORIZING THE CITY MANAGER TO EXECUTE CONTRACT NO. 2022-245 IN AN AMOUNT NOT TO EXCEED $500,000 WITH MCE CORPORATION FOR STORMWATER PUMP STATION OPERATIONS AND MAINTENANCE SERVICES

WHEREAS, the City solicited proposals for stormwater pump station operations and maintenance services under the requirements of state law and accepted proposals on September 30, 2022; and

WHEREAS, two proposals were received before the proposal deadline; and

WHEREAS, MCE Corporation was selected as the most responsive and responsible proposal; and

WHEREAS, adoption of this Resolution will allow the City Manager to execute a 3-year contract with MCE Corporation in an amount not to exceed $500,000; and

WHEREAS, the work scope includes routine inspections, operations, and maintenance; repair and upgrade coordination; and on-call emergency response to ensure the proper operation and performance of the City's six stormwater pump stations; and

WHEREAS, the contract will be funded through the City's Stormwater Utility Fee; and

WHEREAS, the amount exceeds the maximum the City Manager has authorization to approve.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does authorize the City Manager to execute Contract No. 2022-245 in an amount not to exceed $500,000 with MCE Corporation in a form approved by the City Attorney.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 21st day of November 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

_____
Donald Terry, Mayor

Stacy Leitner, CMC
City Clerk

PROFESSIONAL SERVICES AGREEMENT BETWEEN THE CITY OF RANCHO CORDOVA AND MCE CORPORATION FOR STORMWATER PUMP STATION OPERATIONS AND MAINTENANCE SERVICES

THIS AGREEMENT for professional services is made by and between the City of Rancho Cordova, a California municipal corporation ("City"), and MCE Corporation ("Professional") as of November 21, 2022.

Section 1. **SERVICES**. Subject to the terms and conditions set forth in this Agreement, Professional shall provide to City the services described in the Scope of Work attached as Exhibit A at the time and place and in the manner specified therein. In the event of a conflict or inconsistency between the terms of this Agreement and Exhibit A, the Agreement shall prevail.

1.1 **Term of Services.** The term of this Agreement shall begin on the date first noted above and shall end on November 30, 2025, the date of completion specified in Exhibit A. Professional shall complete the work described in Exhibit A prior to that date, unless the term of the Agreement is otherwise terminated or extended, as provided for in Section 8. The time provided to Professional to complete the services required by this Agreement shall not affect the City's right to terminate the Agreement, as provided for in Section 8.

1.2 **Standard of Performance.** Professional shall perform all services required pursuant to this Agreement in the manner and according to the standards observed by a competent practitioner of the profession in which Professional is engaged in the geographical area in which Professional practices its profession. Professional shall prepare all work products required by this Agreement in a substantial, first-class manner and shall conform to the standards of quality normally observed by a person practicing in Professional's profession.

1.3 **Assignment of Personnel.** Professional shall assign only competent personnel to perform services pursuant to this Agreement. In the event that City, in its sole discretion, at any time during the term of this Agreement, desires the reassignment of any such persons, Professional shall, immediately upon receiving notice from City of such desire of City, reassign such person or persons.

1.4 **Time.** Professional shall devote such time to the performance of services pursuant to this Agreement as may be reasonably necessary to meet the standard of performance provided in Section 1.2 above and to satisfy Professional's obligations hereunder.

Section 2. **COMPENSATION.** City hereby agrees to pay Professional a sum not to exceed $500,000, notwithstanding any contrary indications that may be contained in Professional's proposal, for services to be performed and reimbursable costs incurred under this Agreement. In the event of a conflict between this Agreement and Professional's proposal, attached as Exhibit B, regarding the amount of compensation, the Agreement shall prevail. City shall pay Professional for services rendered pursuant to this Agreement at the time and in the manner set forth herein. The payments specified below shall be the only payments from City to Professional for services rendered pursuant to this Agreement. Professional shall submit all invoices to City in the manner specified herein. Except as specifically authorized by City, Professional shall not bill City for duplicate services performed by more than one person.

Professional and City acknowledge and agree that compensation paid by City to Professional under this Agreement is based upon Professional's estimated costs of providing the services required hereunder, including salaries and benefits of employees and subcontractors of Professional. Consequently, the parties further agree that compensation hereunder is intended to include the costs of contributions to any pensions and/or annuities to which Professional and its employees, agents, and subcontractors may be eligible. City therefore has no responsibility for such contributions beyond compensation required under this Agreement.

2.1 **Invoices.** Professional shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:

- Serial identifications of progress bills; i.e., Progress Bill No. 1 for the first invoice, etc.;
- The beginning and ending dates of the billing period;
- A Task Summary containing the original contract amount, the amount of prior billings, the total due this period, the balance available under the Agreement, and the percentage of completion;
- At City's option, for each work item in each task, a copy of the applicable time entries or time sheets shall be submitted showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense;
- The total number of hours of work performed under the Agreement by Professional and each employee, agent, and subcontractor of Professional performing services hereunder, as well as a separate notice when the total number of hours of work by Professional and any individual employee, agent, or subcontractor of Professional reaches or exceeds 800 hours, which shall include an estimate of the time necessary to complete the work described in Exhibit A;
- The Professional's signature.

2.2 **Monthly Payment.** City shall make monthly payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. City shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Professional.

2.3 **Final Payment.** City shall make the final payment within sixty (60) days after completion of the services and submittal to City of a final invoice, if all services required have been satisfactorily performed.

2.4 **Total Payment.** City shall pay for the services to be rendered by Professional pursuant to this Agreement. City shall not pay any additional sum for any expense or cost whatsoever incurred by Professional in rendering services pursuant to this Agreement. City shall make no payment for any extra, further, or additional service pursuant to this Agreement.

In no event shall Professional submit any invoice for an amount in excess of the maximum amount of compensation provided above either for a task or for the entire Agreement, unless the Agreement is modified prior to the submission of such an invoice by a properly executed change order or amendment.

2.5 **Hourly Fees.** Fees for work performed by Professional on an hourly basis shall not exceed the amounts shown on the fee schedule set forth in Exhibit B.

2.6 **Reimbursable Expenses.** Reimbursable expenses, if any, are set forth in Exhibit B. Expenses not listed in Exhibit B are not chargeable to City. Reimbursable expenses are included in the total amount of compensation provided under this Agreement that shall not be exceeded.

2.7 **Payment of Taxes.** Professional is solely responsible for the payment of employment taxes incurred under this Agreement and any similar federal or state taxes.

2.8 **Payment upon Termination.** In the event that the City or Professional terminates this Agreement pursuant to Section 8, the City shall compensate the Professional for all outstanding costs and reimbursable expenses incurred for work satisfactorily completed as of the date of written notice of termination. Professional shall maintain adequate logs and timesheets in order to verify costs incurred to that date.

2.9 **Authorization to Perform Services.** The Professional is not authorized to perform any services or incur any costs whatsoever under the terms of this Agreement until receipt of authorization from the Contract Administrator.

Section 3. **FACILITIES AND EQUIPMENT.** Except as set forth herein, Professional shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the services required by this Agreement. City shall make available to Professional only the facilities and equipment listed in this section, and only under the terms and conditions set forth herein.

City shall furnish physical facilities such as desks, filing cabinets, and conference space, as may be reasonably necessary for Professional's use while consulting with City employees and reviewing records and the information in possession of the City. The location, quantity, and time of furnishing those facilities shall be in the sole discretion of City. In no event shall City be obligated to furnish any facility that may involve incurring any direct expense, including but not limited to computer, long-distance telephone or other communication charges, vehicles, and reproduction facilities.

Section 4. **INSURANCE REQUIREMENTS.** Before beginning any work under this Agreement, Professional, at its own cost and expense, shall procure "occurrence coverage" insurance against claims for injuries to persons or damages to property that may arise from or in connection with the performance of

the work hereunder by the Professional and its agents, representatives, employees, and subcontractors. Professional shall provide proof satisfactory to City of such insurance that meets the requirements of this section and under forms of insurance satisfactory in all respects to the City. Professional shall maintain the insurance policies required by this section throughout the term of this Agreement. The cost of such insurance shall be included in the Professional's bid. Professional shall not allow any subcontractor to commence work on any subcontract until Professional has obtained all insurance required herein for the subcontractor(s) and provided evidence thereof to City. Verification of the required insurance shall be submitted and made part of this Agreement prior to execution. Professional shall maintain all required insurance listed herein for the duration of this Agreement.

4.1 Workers' Compensation. Professional shall, at its sole cost and expense, maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Professional. The Statutory Workers' Compensation Insurance and Employer's Liability Insurance shall be provided with limits of not less than ONE MILLION DOLLARS ($1,000,000.00) per accident. In the alternative, Professional may rely on a self-insurance program to meet those requirements, but only if the program of self-insurance complies fully with the provisions of the California Labor Code. Determination of whether a self-insurance program meets the standards of the Labor Code shall be solely in the discretion of the Contract Administrator. The insurer, if insurance is provided, or the Professional, if a program of self-insurance is provided, shall waive all rights of subrogation against the City and its officers, officials, employees, and volunteers for loss arising from work performed under this Agreement.

An endorsement shall state that coverage shall not be canceled except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City. Professional shall notify City within fourteen (14) days of notification from Professional's insurer if such coverage is suspended, voided or reduced in coverage or in limits.

The requirement to maintain Statutory Worker's Compensation and Employer's Liability Insurance may be waived by the City upon written verification that Professional does not have any employees.

4.2 Commercial General and Automobile Liability Insurance.

4.2.1 General requirements. Professional, at its own cost and expense, shall maintain commercial general liability insurance for the term of this Agreement in an amount not less than TWO MILLION DOLLARS ($2,000,000.00) and automobile liability insurance for the term of this Agreement in an amount not less than ONE MILLION DOLLARS ($1,000,000.00). The commercial general liability and automobile liability insurance shall be per occurrence, combined single limit coverage for risks associated with the work contemplated by this Agreement. If a commercial general liability insurance or an automobile liability form or other form with a general

aggregate limit is used, either the general aggregate limit shall apply separately to the work to be performed under this Agreement or the general aggregate limit shall be at least twice the required occurrence limit. Such coverage shall include but shall not be limited to, protection against claims arising from bodily and personal injury, including death resulting therefrom, and damage to property resulting from activities contemplated under this Agreement, including the use of owned and non-owned automobiles.

4.2.2 **Minimum scope of coverage.** Commercial general liability coverage shall be at least as broad as Insurance Services Office Commercial General Liability occurrence form CG 0001 (most recent edition) covering comprehensive General Liability on an "occurrence" basis. Automobile coverage shall be at least as broad as Insurance Services Office Automobile Liability form CA 0001 (most recent edition), Code 1 (any auto). No endorsement shall be attached limiting the coverage.

4.2.3 **Additional requirements.** Each of the following shall be included in the insurance coverage or added as an endorsement to the policy:

a. City and its officers, employees, agents, and volunteers shall be covered as additional insureds with respect to each of the following: liability arising out of activities performed by or on behalf of Professional, including the insured's general supervision of Professional; products and completed operations of Professional; premises owned, occupied, or used by Professional; and automobiles owned, leased, or used by the Professional. The coverage shall contain no special limitations on the scope of protection afforded to City or its officers, employees, agents, or volunteers.

b. The insurance shall cover on an occurrence or an accident basis, and not on a claims-made basis.

c. An endorsement must state that coverage is primary insurance with respect to the City and its officers, officials, employees and volunteers, and that no insurance or self-insurance maintained by the City shall be called upon to contribute to a loss under the coverage.

d. Any failure of Professional to comply with reporting provisions of the policy shall not affect coverage provided to City and its officers, employees, agents, and volunteers.

e. An endorsement shall state that coverage shall not be canceled except after thirty (30) days' prior written notice by certified mail, return receipt

requested, has been given to the City. Professional shall notify City within fourteen (14) days of notification from Professional's insurer if such coverage is suspended, voided or reduced in coverage or in limits.

4.3 **Professional Liability Insurance.** Professional, at its own cost and expense, shall maintain for the period covered by this Agreement professional liability insurance for licensed professionals performing work pursuant to this Agreement in an amount not less than TWO MILLION DOLLARS ($2,000,000) covering the licensed professionals' errors and omissions.

4.3.1 Any deductible or self-insured retention shall not exceed $150,000 per claim.

4.3.2 An endorsement shall state that coverage shall not be suspended, voided, canceled by either party, or reduced in coverage or in limits, except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City.

4.3.3 The following provisions shall apply if the professional liability coverages are written on a claims-made form:

a. The retroactive date of the policy must be shown and must be before the date of the Agreement.

b. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the Agreement or the work, so long as commercially available at reasonable rates.

c. If coverage is canceled or not renewed and it is not replaced with another claims-made policy form with a retroactive date that precedes the date of this Agreement, Professional must provide extended reporting coverage for a minimum of five (5) years after completion of the Agreement or the work. The City shall have the right to exercise, at the Professional's sole cost and expense, any extended reporting provisions of the policy, if the Professional cancels or does not renew the coverage.

d. A copy of the claim reporting requirements must be submitted to the City prior to the commencement of any work under this Agreement.

4.4 **All Policies Requirements.**

4.4.1 **Acceptability of insurers.** All insurance required by this section is to be placed with insurers with a Bests' rating of no less than A:VII.

4.4.2 **Verification of coverage.** Prior to beginning any work under this Agreement, Professional shall furnish City with certificates of insurance and with original endorsements effecting coverage required herein. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.

4.4.3 **Subcontractors.** Professional shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

4.4.4 **Deductibles and Self-Insured Retentions.** Professional shall disclose to and obtain the approval of City for the self-insured retentions and deductibles before beginning any of the services or work called for by any term of this Agreement.

During the period covered by this Agreement, only upon the prior express written authorization of Contract Administrator, Professional may increase such deductibles or self-insured retentions with respect to City, its officers, employees, agents, and volunteers. The Contract Administrator may condition approval of an increase in deductible or self-insured retention levels with a requirement that Professional procure a bond, guaranteeing payment of losses and related investigations, claim administration, and defense expenses that is satisfactory in all respects to each of them.

4.4.5 **Waiver of Subrogation.** Professional hereby agrees to waive subrogation which any insurer or contractor may require from vendor by virtue of the payment of any loss. Consultant agrees to obtain any endorsements that may be necessary to effect this waiver of subrogation. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the entity for all work performed by the Professional, its employees, agents, and subcontractors.

4.4.6 **Notice of Reduction in Coverage.** In the event that any coverage required by this section is reduced, limited, or materially affected in any other manner, Professional shall provide written notice to City at Professional's earliest possible opportunity and in no case later than five (5) days after Professional is notified of the change in coverage.

4.5 **Remedies.** In addition to any other remedies City may have if Professional fails to provide or maintain any insurance policies or policy endorsements to the extent and within the time herein required, City may, at its sole option exercise any of the following remedies, which are alternatives to other remedies City may have and are not the exclusive remedy for Professional's breach:

- Obtain such insurance and deduct and retain the amount of the premiums for such insurance from any sums due under the Agreement;

- Order Professional to stop work under this Agreement or withhold any payment that becomes due to Professional hereunder, or both stop work and withhold any payment, until Professional demonstrates compliance with the requirements hereof; and/or

- Terminate this Agreement.

Section 5. INDEMNIFICATION AND PROFESSIONAL'S RESPONSIBILITIES.

5.1 General Requirement. Professional shall indemnify, defend with counsel selected by the City, and hold harmless the City and its officials, officers, employees, agents, and volunteers from and against any and all losses, liability, claims, suits, actions, damages, and causes of action arising out of any personal injury, bodily injury, loss of life, or damage to property, or any violation of any federal, state, or municipal law or ordinance, to the extent caused, in whole or in part, by the willful misconduct or negligent acts or omissions of Professional or its employees, subcontractors, or agents, by acts for which they could be held strictly liable, or by the quality or character of their work. The foregoing obligation of Professional shall not apply when (1) the injury, loss of life, damage to property, or violation of law arises wholly from the negligence or willful misconduct of the City or its officers, employees, agents, or volunteers and (2) the actions of Professional or its employees, subcontractor, or agents have contributed in no part to the injury, loss of life, damage to property, or violation of law. It is understood that the duty of Professional to indemnify and hold harmless includes the duty to defend as set forth in Section 2778 of the California Civil Code. Acceptance by City of insurance certificates and endorsements required under this Agreement does not relieve Professional from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Professional acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.

5.2 PERS Indemnification. In the event that Professional or any employee, agent, or subcontractor of Professional providing services under this Agreement is determined by a court of competent jurisdiction or the California Public Employees Retirement System ("PERS") to be eligible for enrollment in PERS as an employee of City, Professional shall indemnify, defend, and hold harmless City for the payment of any and all employee and/or employer contributions for PERS benefits on behalf of Professional or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of City, and any attorneys' fees and costs incurred by the City to enforce this Section.

5.3 **Design Professionals.** To the extent that the services under this Agreement include design professional services subject to California Civil Code Section 2782.8, as may be amended from time to time, Professional's duty to indemnify under Sections 5.1 and 5.2 shall only be to the maximum extent permitted by California Civil Code Section 2782.8.

Section 6. STATUS OF PROFESSIONAL.

6.1 **Independent Contractor.** At all times during the term of this Agreement, Professional shall be an independent contractor as defined in Labor Code Section 3353, and shall not be an employee of City. Nothing contained in this Agreement shall be construed to be inconsistent with the foregoing relationship or status. City shall have the right to control Professional only insofar as the results of Professional's services rendered pursuant to this Agreement and assignment of personnel pursuant to Subparagraph 1.3; however, otherwise City shall not have the right to control the means and methods by which Professional accomplishes services rendered pursuant to this Agreement. Professional shall have no power or authority by this Agreement to bind the City in any respect. All employees and agents hired or retained by Professional are employees and agents of Professional and not of the City. The City shall not be obligated in any way to pay any wage claims or other claims made against Professional by any such employees or agents, or any other person resulting from performance of this Agreement.

Notwithstanding any other City, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Professional and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by City, including but not limited to eligibility to enroll in PERS as an employee of City and entitlement to any contribution to be paid by City for employer contributions and/or employee contributions for PERS benefits. Professional shall not allow any employee, agent or subcontractor to become eligible for a claim for PERS benefits.

6.2 **Professional Not an Agent.** Except as City may specify in writing, Professional shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent. Professional shall have no authority, express or implied, pursuant to this Agreement to bind City to any obligation whatsoever.

Section 7. LEGAL REQUIREMENTS.

7.1 **Governing Law.** The laws of the State of California shall govern this Agreement.

7.2 **Compliance with Applicable Laws.** Professional and any subcontractors shall comply with all laws and regulations applicable to the performance of the work

hereunder, including but not limited to, the California Building Code, the Americans with Disabilities Act, and any copyright, patent or trademark law. Professional's failure to comply with any law(s) or regulation(s) applicable to the performance of the work hereunder shall constitute a breach of contract.

7.3 **Other Governmental Regulations.** To the extent that this Agreement may be funded by fiscal assistance from another governmental entity, Professional and any subcontractors shall comply with all applicable rules and regulations to which City is bound by the terms of such fiscal assistance program.

7.4 **Licenses and Permits.** Professional represents and warrants to City that Professional and its employees, agents, and any subcontractors have all licenses, permits, qualifications, and approvals of whatsoever nature that are legally required to practice their respective professions. Professional represents and warrants to City that Professional and its employees, agents, any subcontractors shall, at their sole cost and expense, keep in effect at all times during the term of this Agreement any licenses, permits, and approvals that are legally required to practice their respective professions. In addition to the foregoing, Professional and any subcontractors shall obtain and maintain valid Business Licenses from City during the term of this Agreement.

7.5 **Nondiscrimination and Equal Opportunity.** Professional shall not discriminate, on the basis of a person's race, religion, color, national origin, age, physical or mental handicap or disability, medical condition, marital status, sex, or sexual orientation, against any employee, applicant for employment, subcontractor, bidder for a subcontract, or participant in, recipient of, or applicant for any services or programs provided by Professional under this Agreement. Professional shall comply with all applicable federal, state, and local laws, policies, rules, and requirements related to equal opportunity and nondiscrimination in employment, contracting, and the provision of any services that are the subject of this Agreement, including but not limited to the satisfaction of any positive obligations required of Professional thereby.

Professional shall include the provisions of this Subsection in any subcontract approved by the Contract Administrator or this Agreement.

Section 8. TERMINATION AND MODIFICATION.

8.1 **Termination.** City may cancel this Agreement at any time and without cause upon written notification to Professional.

Professional may cancel this Agreement upon thirty (30) days' written notice to City and shall include in such notice the reasons for cancellation.

In the event of termination, Professional shall be entitled to compensation for services performed to the effective date of termination; City, however, may condition payment of such compensation upon Professional delivering to City any or all documents, photographs, computer software, video and audio tapes, and other materials provided to Professional or prepared by or for Professional or the City in connection with this Agreement.

8.2 **Extension.** City may, in its sole and exclusive discretion, extend the end date of this Agreement beyond that provided for in Subsection 1.1. Any such extension shall require a written amendment to this Agreement, as provided for herein. Professional understands and agrees that, if City grants such an extension, City shall have no obligation to provide Professional with compensation beyond the maximum amount provided for in this Agreement. Similarly, unless authorized by the Contract Administrator, City shall have no obligation to reimburse Professional for any otherwise reimbursable expenses incurred during the extension period.

8.3 **Amendments.** The Parties may amend this Agreement only by a writing signed by all the Parties.

8.4 **Assignment and Subcontracting.** City and Professional recognize and agree that this Agreement contemplates personal performance by Professional and is based upon a determination of Professional's unique personal competence, experience, and specialized personal knowledge. Moreover, a substantial inducement to City for entering into this Agreement was and is the professional reputation and competence of Professional. Professional may not assign this Agreement or any interest therein without the prior written approval of the Contract Administrator. Professional shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors noted in the proposal, without prior written approval of the Contract Administrator.

8.5 **Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between City and Professional shall survive the termination of this Agreement.

8.6 **Options upon Breach by Professional.** If Professional materially breaches any of the terms of this Agreement, City's remedies shall include, but not be limited to, the following:

8.6.1 Immediately terminate the Agreement;

8.6.2 Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Professional pursuant to this Agreement;

8.6.3 Retain a different Professional to complete the work described in Exhibit A not finished by Professional; or

8.6.4 Charge Professional the difference between the cost to complete the work described in Exhibit A that is unfinished at the time of breach and the amount that City would have paid Professional pursuant to Section 2 if Professional had completed the work.

Section 9. KEEPING AND STATUS OF RECORDS.

9.1 **Records Created as Part of Professional's Performance.** All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Professional prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the City. Professional hereby agrees to deliver those documents to the City upon termination of the Agreement. It is understood and agreed that the documents and other materials, including but not limited to those described above, prepared pursuant to this Agreement are prepared specifically for the City and are not necessarily suitable for any future or other use. City and Professional agree that, until final approval by City, all data, plans, specifications, reports and other documents are confidential and will not be released to third parties without prior written consent of both parties.

9.2 **Professional's Books and Records.** Professional shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services or expenditures and disbursements charged to the City under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Professional pursuant to this Agreement.

9.3 **Inspection and Audit of Records.** Any records or documents that Section 9.2 of this Agreement requires Professional to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the City. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds TEN THOUSAND DOLLARS ($10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of City or as part of any audit of the City, for a period of three (3) years after final payment under the Agreement.

Section 10 MISCELLANEOUS PROVISIONS.

10.1 **Attorneys' Fees.** If a Party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing Party shall be entitled to reasonable attorneys' fees in addition to any other relief to which

that Party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.

10.2 **Venue.** In the event that either Party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Sacramento or in the United States District Court for the Eastern District of California.

10.3 **Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

10.4 **No Implied Waiver of Breach**. The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

10.5 **Successors and Assigns.** The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.

10.6 **Use of Recycled Products.** Professional shall prepare and submit all reports, written studies and other printed material on recycled paper to the extent it is available at equal or less cost than virgin paper.

10.7 **Conflict of Interest.** Professional may serve other clients, but none whose activities within the corporate limits of City or whose business, regardless of location, would place Professional in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*

Professional shall not employ any City official in the work performed pursuant to this Agreement. No officer or employee of City shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.*

Professional hereby warrants that it is not now, nor has it been in the previous twelve (12) months, an employee, agent, appointee, or official of the City. If Professional was an employee, agent, appointee, or official of the City in the previous twelve months, Professional warrants that it did not participate in any manner in the forming of this Agreement. Professional understands that, if this Agreement is made in violation of Government Code §1090 *et.seq.*, the entire Agreement is void and Professional will not be entitled to any compensation for services performed pursuant to this Agreement, including reimbursement of expenses, and Professional will be required to reimburse the City for any sums paid to the Professional. Professional understands that, in addition to the foregoing,

it may be subject to criminal prosecution for a violation of Government Code § 1090 and, if applicable, will be disqualified from holding public office in the State of California.

10.8 **Solicitation.** Professional agrees not to solicit business at any meeting, focus group, or interview related to this Agreement, either orally or through any written materials.

10.9 **Contract Administration.** This Agreement shall be administered by Dalia Fadl ("Contract Administrator"). All correspondence shall be directed to or through the Contract Administrator or his or her designee.

10.10 **Notices.** Any written notice to Professional shall be sent to:
MCE Corporation
6515 Trinity Court
Dublin, CA 94568
ATTN: Jeff Core, President
Email Address (for Insurance Update Requests) VCudia@MCE-CORP.COM

Any written notice to City shall be sent to:
City of Rancho Cordova
2729 Prospect Park Dr
Rancho Cordova, CA 95670
ATTN: Dalia Fadl, Principal Engineer

10.11 **Professional Seal.** Where applicable in the determination of the Contract Administrator or when required by law, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation. The stamp/seal shall be in a block entitled "Seal and Signature of Registered Professional with report/design responsibility," as in the following example.

_____ Seal and Signature of Registered Professional with report/design responsibility.

10.12 **Integration.** This Agreement, including the scope of work attached hereto and incorporated herein as Exhibit A, and the compensation schedule attached hereto and incorporated herein as Exhibit B, represents the entire and integrated agreement between City and Professional and supersedes all prior negotiations, representations, or agreements, either written or oral.

Last Revised January 2022

10.13 **IRS Form W-9.** Professional shall complete and submit Internal Revenue Service Form W-9 to the City before execution of this Agreement. The City's Finance Director shall have authority to waive this requirement.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the day and year first set forth above, which date shall be considered by the Parties to be the effective date of this Agreement.

CITY OF RANCHO CORDOVA

_____
Cyrus Abhar, City Manager

Date: _____

Attest:

_____
Stacy Leitner, CMC, City Clerk

Date: _____

Approved as to Form:

_____
Adam U. Lindgren, City Attorney

PROFESSIONAL

_____
Jeff Core, President

Date: _____

Last Revised January 2022

EXHIBIT A

SCOPE OF SERVICES

.

Professional will provide Pump Station Operations and Maintenance Services to the City as specified in the following Request for Proposals (RFP), which is incorporated in and made part of this contract, and shall survive all other terms and conditions under this contract. The Professional's proposal is also attached and made part of this contract:

Last Revised January 2022

CITY OF RANCHO CORDOVA

DEPARTMENT OF PUBLIC WORKS

Requests for Proposals for:

Professional Services for Stormwater Pump Station Operations and Maintenance

City of Rancho Cordova
Department of Public Works
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Release Date: Wednesday, August 31, 2022

Written Questions Due: Friday, September 16, 2022 at 4 p.m.

Answers to Questions: Thursday, September 22, 2022

Proposals Due: Friday, September 30, 2022 at 4 p.m.

Interviews (If Necessary): Week of Monday, October 10, 2022

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SECTION 1
REQUEST FOR PROPOSALS OVERVIEW

INTRODUCTION

The City of Rancho Cordova, Department of Public Works, is seeking the submission of proposals for Stormwater Pump Station Operations and Maintenance. Should a contract be executed as a result of this Request for Proposals (RFP), the Consultant will be expected to perform services comprised of performing routine inspections and operations and maintenance; repair and upgrade coordination; and on-call emergency response to ensure the proper operation and performance of the City's six (6) stormwater pump stations, as identified in this RFP.

This RFP contains all of the information and documents necessary to prepare and submit a responsive proposal. Proposers are cautioned to read all of the documentation provided. Proposers will be responsible for complying with all requirements identified herein. The City expects any contract resulting from this RFP to be in effect for a period of three years, with an option to extend the contract for two additional years.

BACKGROUND

The City of Rancho Cordova is home to more than 80,000 residents who have come to expect the highest quality public service since the City incorporated in 2003. The City is comprised of more than 35 square miles of land and is located in Sacramento County along the Highway 50 corridor, approximately 12 miles east of the California State Capitol. The City's Public Works Stormwater Program manages over 250 miles of drainage pipe, over 12,000 drainage structures, 70 acres of creek channels or tributaries, and 6 pump stations.

PROPOSAL INFORMATION

Proposals shall be made only on forms provided in this RFP, as obtained from the City. All forms shall be completed with numbers stated in figures, and signatures of all individuals in original ink and in long-hand. All cost figures shall be clearly indicated in the Cost Proposal (sealed). The proposal shall include any other submittals and requirements identified in this RFP.

Any questions related to this RFP shall be directed to Margarita Dronov, PE in the Public Works Department by Friday, September 16, 2022. All questions must be submitted *via email* at *mdronov@cityofranchocordova.org*. Table 1 describes key dates and submittal requirements.

TABLE 1
Key Dates and Information

RFP Release Date:	Wednesday, August 31, 2022
Title:	Professional Services for Stormwater Pump Station Operations and Maintenance
Deadline for Written Questions/Clarifications:	**Friday, September 16, 2022 at 4:00 p.m.**
Response to Written Questions:	Thursday September 22, 2022
Proposal Deadline:	**Friday, September 30, 2022 at 4:00 p.m.**
Interviews (If deemed necessary by City):	Week of Monday, October 10, 2022
Submittal:	One original, with ink signatures, and 1 copy of the response to this RFP must be sealed, and must clearly display the Proposer's business name.
Contract Manager: Address: Email Address:	Dalia Fadl Principal Civil Engineer City of Rancho Cordova 2729 Prospect Park Drive Rancho Cordova, CA 95670 *dfadl@cityofranchocordova.org*

KEY STAFF QUALIFICATIONS

Project Manager/Operation Supervisor: The project manager/operation supervisor shall be a registered Civil Engineer in the State of California with a minimum of 10 years of experience operating facilities with pumps, motors, SCADA, programmable logic controllers (PLCs), valves, bar screens and instrumentation. The project manager/operations supervisor shall have a good understanding of hydraulics and specific experience with pump settings, preventive maintenance programs, remote access of facilities using SCADA, coordinating and overseeing maintenance and repairs, facility upgrades and construction management.

Facility Operator: The facility operator shall have a minimum of 5 years of experience operating facilities with pumps, motors, SCADA, PLCs, valves, bar screens and instrumentation. The lead facility operator shall have detail experience with maintaining and operating mechanical and instrumentation equipment and facilities, following standard operating procedures; and performing or inspecting preventative maintenance duties.

Instrumentation Technician: The instrumentation technician or subconsultant programming firm shall have a minimum of 5 years of experience installing, repairing and troubleshooting electrical and mechanical instrumentation, PLCs, radios, and SCADA systems.

INSURANCE REQUIREMENTS

Proposers acknowledge the City's insurance requirements as detailed in **Appendix B**. Exceptions to City insurance requirements will not be made. Any Proposer unable to meet the insurance requirements, as detailed, shall not be eligible for selection or award of contract.

BASIS FOR EVALUATION OF PROPOSALS

In order to receive consideration of selection, all proposals received must address all aspects of this RFP. Each item identified in the **Proposals Submittal Checklist** shall be included in the proposal submittal. The following criteria will be used to evaluate each response:

Experience with similar kinds of work	25 points
Demonstrated technical ability	15 points
Quality of staff for work to be done	15 points
Firm/key personnel's accessibility to City staff/ responsiveness	15 points
Ability to meet the City requirements/ understanding of scope of work	25 points
References	5 points
Total	**100 points**

Submission of a proposal implies proposer's acceptance of the evaluation criteria.

The City reserves the right to reject any and all proposals, to waive any irregularities in any proposal, act as sole judge of the merit and qualifications of services offered, and to accept the proposal which is deemed to be in the best interest of the City of Rancho Cordova. The City will award any agreement based on the most responsive and responsible proposal, which includes the quality and suitability of services for the City's particular needs. Additionally, the City may, for any reason, determine not to award an agreement as a result of this RFP.

AWARD

The City reserves the right to accept proposals on individual items listed, on group items, or on the proposal as a whole; to reject any and all proposals; to waive any informality in the proposals; and to accept the proposal that appears to be in the best interest of the City. The City intends to award all RFP items to a single consultant.

In determining and evaluating the most responsive and responsible proposal, the prices will not necessarily be the controlling factor, but quality, equality, efficiency, utility, general terms, delivery, suitability of the service offered, and the reputation of the service in general use will also be considered with any other relevant factors. The Contract Manager shall have sole discretion in the determination of these matters.

Notice of contract award, if a contract is awarded, will be made within ninety (90) days of opening of proposals to the lowest and most responsive and responsible consultant, whose proposal complies with all the requirements in this RFP. Consultant shall agree to sign within ten (10) days of award a contract as approved by the Rancho Cordova City Council, template attached as Appendix "A" .

SECTION 2
SCOPE OF SERVICES

WORK GUIDANCE

A preliminary copy of the City's contract template for Professional Services for Stormwater Pump Stations Operations and Maintenance is attached to this RFP as **Appendix A.** The contract shall bind selected proposer to perform work in accordance with this RFP.

DESCRIPTION OF WORK STANDARDS

City requires the selected Proposer to meet the following minimum standards:

Workmanship: All materials and workmanship shall be of a quality that is equal or superior to any similar work considered by pump station maintenance consultants to be best practice. All work completed by selected consultant shall be subject to inspection by the City prior to payment being authorized. All work shall be conducted in a manner that least interferes with operation and public usage of streets and sidewalks.

Safety: All services, supplies and equipment must comply with the California Safety Division of Industrial Safety Orders and O.S.H.A. The Consultant shall plan and conduct the work in a manner that will safeguard all persons from injury and shall take all precautions required by applicable regulations of the State Department of Industrial Regulations. **The Consultant's employees shall wear O.S.H.A. approved safety vests and other applicable safety gear at all times during contract work.**

Hazards and Vandalism: Any hazards or acts of vandalism shall be reported immediately to the Contract Manager and then followed up in writing. Hazards shall be remedied by the Consultant after approval is obtained from the Contract Manager. Hazards which create life-threatening situations or potential for bodily harm shall be remedied immediately by the Consultant.

Response: Selected Consultant will be required to respond to any location as soon as possible, with no more than **sixty (60) minutes** in response time. A communications plan shall be in place which provides the City ability to contact the Consultant in an emergency twenty-four (24) hours a day, seven days a week. The plan should identify the main point of contact, and alternative contacts in case of vacations or time off. Failure to adequately respond can result in ***immediate termination*** of the remainder of the contract.

City Policy: Selected Consultant shall be aware of, and shall comply with, City ordinances governing maintenance work and traffic control regulations during work, as applicable to individual locations being maintained.

CONTRACT SCOPE CHANGES

Proposers acknowledge that the City reserves the right to add, delete, or change the contract scope as it is written in this RFP, and may do so upon written notification to the selected Consultant. Any changes to the contract scope of work provided in this RFP that result in an increase or reduction in cost shall be adjusted based on negotiation and written agreement between City and Consultant. City expects cost negotiations to be guided by the Cost Schedule submitted by the Consultant in **Section 4** of this RFP.

COMMENCEMENT OF WORK

Proposers acknowledge that submittal of proposals does not constitute any acceptance of work by City. Additionally, the receipt of award of contract to any Proposer shall not constitute any authority to enter upon sites for work. Work shall commence only upon formal execution of a contract with, and written notice from, the City.

The City seeks to make selection of a Consultant and execute a contract for Stormwater Pump Station Operations and Maintenance by November 21, 2022. Proposers acknowledge that they are prepared to execute a contract and begin work within this time. Any proposer unable to meet this timeframe shall not be considered for award.

TERM OF AGREEMENT

Any Contract resulting from this RFP is expected to be a three (3) year contract starting December 1, 2022, or earlier dependent on formal execution of the contract. If mutually agreeable to both parties, the resulting contract may be extended for two additional years.

Failure of the Consultant to diligently prosecute the work as defined herein will be considered as grounds for termination of the contract.

Failure to provide an adequate working force shall be considered as grounds for the termination of the contract.

This contract may be terminated by the City upon thirty (30) calendar days prior written notice addressed to the last known address of the Consultant. In the event of such termination, the Consultant shall be paid for all work, which has been completed up to the effective date of such termination.

SUBCONSULTANTS

Proposers requiring the provision of additional services from subconsultants acknowledge that all proposed subconsultants shall adhere to the same standards of work as described in this RFP. Proposers further acknowledge that the selected Consultant shall be required to perform, with the Consultant's own organization and employees, not less than fifty percent (50%) of the value of all work conducted under executed contract.

Any consultant submitting proposals for work that includes the use of subconsultants shall additionally submit a filled out **Designation of Subconsultants** form **(Section 4)**.

ADDITIONAL CONTRACT PROVISIONS

Further special provisions guiding the execution of a contract for Stormwater Pump Station Operations and Maintenance are fully described in **Appendix C, Additional Special Provisions** and **Appendix D, Technical Provisions.** Proposers' attention is directed to review of these additional contract provisions, as they will be made part of the contract to be executed by the selected Consultant.

SECTION 3

PROPOSAL REQUIREMENTS

The proposal shall be limited to **5 double sided pages** excluding cover letter, key staff resumes, references, dividers, and cost proposal. Consultant shall include the following information in the proposal, using the same format and sequence:

Cover Letter: The Proposal's cover letter, which shall be signed by an official authorized to bind the consultant, shall include the following:

- Firm/entity name
- Brief description of the firm/entity
- Sub-consultants or joint venture identified (if applicable to your proposal)
- Name, title and telephone number of individuals with authority to bind the firm/team and also who may be contacted during the period of proposal evaluation

Proposal:

1. Scope of Services Understanding:

A. Provide information based upon the Consultant's understanding of the scope of services and goals of the services requested, potential challenges, special considerations and identification of the various functions (i.e. subconsultants)

B. Statement that addresses the firm or consultant team's ability to meet the City's insurance requirements

C. A statement of willingness to sign the City's Professional Services Agreement. Objections to this agreement must be noted in the Proposal

2. Project Team:

A. Contact Person. Name of the project manager in the firm/entity who will have direct and continued responsibility for the services provided to the City. This person will be the City staff's first point-of-contact on all matters dealing with the services offered and will handle day-to-day activities through to completion

B. Information about the consulting team/firm background, organization, office structure and location, number of professional personnel, and equipment

C. Consultants experience in providing services on projects similar to the projects in this RFP, with particular emphasis on projects for other municipalities within the Sacramento region

D. An organization chart showing the proposed relationships between all key staff and support staff who are expected to participate in the City's project (Note: if the proposal includes more than one firm/entity, please identify the responsibilities and roles of each firm, and include all subconsultant team members.)

E. A summary of the qualifications and experience of the consultant's key staff (including subconsultants) that will be directly involved in providing the services. Discuss any innovative ideas and approaches the key staff have used on previous projects that make them uniquely qualified. Include relevant education, licenses, accreditation and certificates

F. A list of three (3) references from like services and projects in the region that may be contacted

3. Project Work Plan:

A. A statement that addresses the challenges that can occur during the operations of the pump stations' facilities, process and any unique experience, abilities, or services that can be

provided by the firm or consultant's team to solve these challenges. Cite examples where these challenges were met.

B. Description of proposed approach to the operation and maintenance of the City's six (6) pump stations. Specifically, provide a detailed description of your work plan for performing the required services, including preventive and corrective maintenance, equipment repair and maintenance, and plan for prevention of and response to emergencies, including weather-related emergencies. Provide a tabulation of the tasks anticipated and estimated hours for each task.

C. Discussion of insights on unique approach that the Consultant's team may have and could use if hired by the City.

D. Statement that addresses how the firm or Consultant's team will demonstrate their commitment to the City's project when other demands are made on staff. The Consultant shall include specific commitments for the Project Manager and Operation Lead for these services as well as other current commitments.

4. Cost Proposal:

Cost proposal shall be submitted in a separately sealed envelope. Fee schedule shall match the tasks delineated in the scope of work proposed by the Consultant. Hourly rate sheet shall be included in the sealed cost proposal.

PROPOSAL SUBMISSION

Any questions regarding this Request for Proposals should be directed to the following City staff, in the order given:

Margarita Dronov, PE
Associate Civil Engineer
mdronov@cityofranchocordova.org
916-851-8897

Dalia Fadl, PE
Principal Engineer
dfadl@cityofranchocordova.org
916-851-8718

One (1) unbound original and one (1) bound copy of the Proposal must be received (not postmarked) and date stamped by a designated City employee no later than **4:00 p.m. on Friday September 30, 2022** at the City of Rancho Cordova.

Proposals should be marked and delivered/mailed as follows:

Professional Services Proposal For
Stormwater Pump Station Operations and Maintenance
City of Rancho Cordova
2729 Prospect Drive
Rancho Cordova, CA 95670

Attention: Dalia Fadl
Public Works Department

SECTION 4 (Required Submittal Forms)

PROPOSAL SUBMITTAL CHECKLIST

Each submitted proposal shall include a completed (and signed where required) copy of each of the following checklist items. Any submitted proposal that fails to include any of the following may be deemed inadequate by the City of Rancho Cordova, and may be grounds for dismissal of submittal at the City's sole discretion.

In addition to each item below, please include this page as a cover sheet. Please provide the below items in the same order as presented here.

_____ Proposal Submittal Checklist

_____ Cover Letter

_____ Scope of Services Understanding

_____ Project Team Information

_____ Project Work Plan

_____ Cost Proposal (sealed)

_____ Designation of Subconsultants

_____ Exceptions to Agreement

DESIGNATION OF SUBCONSULTANTS *(Required submittal form)*

In compliance with the provisions of Section 4100-4114 of the Public Contracts Code of the State of California, and any amendments thereof, each proposer shall set forth below the name and location of the place of business of each subconsultant who will perform work or labor or render service to the Consultant in or about the Services to be performed under these specifications in excess of one-half of one percent (0.5%) of the prime Consultant's total bid or ten thousand dollars ($10,000.00), whichever is greater. The prime Consultant shall list the portion of the work which will be done by such Subconsultant.

If the Consultant fails to specify a subconsultant for any portion of the work to be performed under the Contract, the Consultant shall be deemed to have agreed to perform such portion itself, and the Consultant shall not be permitted to subcontract that portion of the work except under the conditions allowed by applicable law. Subconsultants shall provide all required licensing documentation.

SUBCONSULTANT (Name & Location)	% OF WORK	ESTIMATED ANNUAL DOLLAR AMOUNT	WORK TO BE PERFORMED BY SUBCONSULTANT

Date: _____

Name: _____

Title: _____

Signature: _____

EXCEPTIONS TO AGREEMENT *(Required submittal form)*

Proposers are to prepare all forms and the cost proposal based on the program specifications set forth in the RFP documents without considering any exceptions that may be set forth on this form. In the event the proposer takes exception to the RFP specifications they may set forth those exceptions in the following manner:

- The exceptions are to be presented on a separate paper titled, "Form Exceptions to Agreement".
- Each exception must be presented separately by stating: the specific exception, the page and line numbers of the exception, the suggested changes to the program related to the exception, the suggested changes in the Agreement language related to the exception, the manner in which the proposed change would benefit the City, the customers or both, and the specific dollar change in each of the various service rates, as proposed by the proposer in this RFP, that would take place if the exception was accepted by the City.
- The exceptions must be followed with the following language without exception.
- **"Except as set forth above, proposer is in complete agreement with the proposed terms, conditions and business arrangements described in the RFP including the attached Agreement. The proposer assumes the risk of all conditions foreseen or unforeseen and agrees to provide the services set forth in the Agreement under whatever circumstances may develop other than as herein provided."**
- The form must be signed by an individual authorized to commit the proposer's firm to the Agreement in the manner set forth below.

Date: _____

Name: _____

Title: _____

Signature: _____

Please note that if exceptions are taken, all required information as set forth above must be submitted. Exceptions taken without providing the required information will not be considered.

APPENDIX A
SAMPLE CONTRACT

PROFESSIONAL SERVICES AGREEMENT BETWEEN THE CITY OF RANCHO CORDOVA AND XXX

THIS AGREEMENT for professional services is made by and between the City of Rancho Cordova, a California municipal corporation ("City"), and _____, a _____ ("Professional") as of _____, 20XX.

Section 1. **SERVICES**. Subject to the terms and conditions set forth in this Agreement, Professional shall provide to City the services described in the Scope of Work attached as Exhibit A at the time and place and in the manner specified therein. In the event of a conflict or inconsistency between the terms of this Agreement and Exhibit A, the Agreement shall prevail.

1.1 **Term of Services.** The term of this Agreement shall begin on the date first noted above and shall end on _____, the date of completion specified in Exhibit A. Professional shall complete the work described in Exhibit A prior to that date, unless the term of the Agreement is otherwise terminated or extended, as provided for in Section 8. The time provided to Professional to complete the services required by this Agreement shall not affect the City's right to terminate the Agreement, as provided for in Section 8.

1.2 **Standard of Performance.** Professional shall perform all services required pursuant to this Agreement in the manner and according to the standards observed by a competent practitioner of the profession in which Professional is engaged in the geographical area in which Professional practices its profession. Professional shall prepare all work products required by this Agreement in a substantial, first-class manner and shall conform to the standards of quality normally observed by a person practicing in Professional's profession.

1.3 **Assignment of Personnel.** Professional shall assign only competent personnel to perform services pursuant to this Agreement. In the event that City, in its sole discretion, at any time during the term of this Agreement, desires the reassignment of any such persons, Professional shall, immediately upon receiving notice from City of such desire of City, reassign such person or persons.

1.4 **Time.** Professional shall devote such time to the performance of services pursuant to this Agreement as may be reasonably necessary to meet the standard of performance provided in Section 1.2 above and to satisfy Professional's obligations hereunder.

Section 2. **COMPENSATION.** City hereby agrees to pay Professional a sum not to exceed _____, notwithstanding any contrary indications that may be contained in Professional's proposal, for services to be performed and reimbursable costs incurred under this Agreement. In the event of a conflict between this Agreement and Professional's proposal, attached as Exhibit B, regarding the amount of compensation, the Agreement shall prevail. City shall pay Professional for services rendered

pursuant to this Agreement at the time and in the manner set forth herein. The payments specified below shall be the only payments from City to Professional for services rendered pursuant to this Agreement. Professional shall submit all invoices to City in the manner specified herein. Except as specifically authorized by City, Professional shall not bill City for duplicate services performed by more than one person.

Professional and City acknowledge and agree that compensation paid by City to Professional under this Agreement is based upon Professional's estimated costs of providing the services required hereunder, including salaries and benefits of employees and subcontractors of Professional. Consequently, the parties further agree that compensation hereunder is intended to include the costs of contributions to any pensions and/or annuities to which Professional and its employees, agents, and subcontractors may be eligible. City therefore has no responsibility for such contributions beyond compensation required under this Agreement.

2.1 **Invoices.** Professional shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:

- Serial identifications of progress bills; i.e., Progress Bill No. 1 for the first invoice, etc.;
- The beginning and ending dates of the billing period;
- A Task Summary containing the original contract amount, the amount of prior billings, the total due this period, the balance available under the Agreement, and the percentage of completion;
- At City's option, for each work item in each task, a copy of the applicable time entries or time sheets shall be submitted showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense;
- The total number of hours of work performed under the Agreement by Professional and each employee, agent, and subcontractor of Professional performing services hereunder, as well as a separate notice when the total number of hours of work by Professional and any individual employee, agent, or subcontractor of Professional reaches or exceeds 800 hours, which shall include an estimate of the time necessary to complete the work described in Exhibit A;
- The Professional's signature.

2.2 **Monthly Payment.** City shall make monthly payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. City shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Professional.

2.3 **Final Payment.** City shall make the final payment within sixty (60) days after completion of the services and submittal to City of a final invoice, if all services required have been satisfactorily performed.

2.4 **Total Payment.** City shall pay for the services to be rendered by Professional pursuant to this Agreement. City shall not pay any additional sum for any expense or cost whatsoever

incurred by Professional in rendering services pursuant to this Agreement. City shall make no payment for any extra, further, or additional service pursuant to this Agreement.

In no event shall Professional submit any invoice for an amount in excess of the maximum amount of compensation provided above either for a task or for the entire Agreement, unless the Agreement is modified prior to the submission of such an invoice by a properly executed change order or amendment.

2.5 **Hourly Fees.** Fees for work performed by Professional on an hourly basis shall not exceed the amounts shown on the fee schedule set forth in Exhibit B.

2.6 **Reimbursable Expenses.** Reimbursable expenses, if any, are set forth in Exhibit B, and shall not exceed _____ ($_____). Expenses not listed in Exhibit B are not chargeable to City. Reimbursable expenses are included in the total amount of compensation provided under this Agreement that shall not be exceeded.

2.7 **Payment of Taxes.** Professional is solely responsible for the payment of employment taxes incurred under this Agreement and any similar federal or state taxes.

2.8 **Payment upon Termination.** In the event that the City or Professional terminates this Agreement pursuant to Section 8, the City shall compensate the Professional for all outstanding costs and reimbursable expenses incurred for work satisfactorily completed as of the date of written notice of termination. Professional shall maintain adequate logs and timesheets in order to verify costs incurred to that date.

2.9 **Authorization to Perform Services.** The Professional is not authorized to perform any services or incur any costs whatsoever under the terms of this Agreement until receipt of authorization from the Contract Administrator.

Section 3. **FACILITIES AND EQUIPMENT.** Except as set forth herein, Professional shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the services required by this Agreement. City shall make available to Professional only the facilities and equipment listed in this section, and only under the terms and conditions set forth herein.

City shall furnish physical facilities such as desks, filing cabinets, and conference space, as may be reasonably necessary for Professional's use while consulting with City employees and reviewing records and the information in possession of the City. The location, quantity, and time of furnishing those facilities shall be in the sole discretion of City. In no event shall City be obligated to furnish any facility that may involve incurring any direct expense, including but not limited to computer, long-distance telephone or other communication charges, vehicles, and reproduction facilities.

Section 4. **INSURANCE REQUIREMENTS.** Before beginning any work under this Agreement, Professional, at its own cost and expense, shall procure "occurrence coverage" insurance against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the Professional and its agents, representatives, employees, and subcontractors. Professional shall provide proof satisfactory to City of such insurance that meets the requirements of this section and under forms of insurance satisfactory in all respects to the City. Professional shall maintain the insurance policies required by this section throughout the term of this Agreement. The cost of such insurance shall be included in the Professional's bid. Professional shall not allow any subcontractor to commence work on any subcontract until Professional has obtained all insurance required herein for the subcontractor(s) and provided evidence thereof to City. Verification of the required insurance shall be submitted and made part of this Agreement prior to execution. Professional shall maintain all required insurance listed herein for the duration of this Agreement.

4.1 **Workers' Compensation.** Professional shall, at its sole cost and expense, maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Professional. The Statutory Workers' Compensation Insurance and Employer's Liability Insurance shall be provided with limits of not less than ONE MILLION DOLLARS ($1,000,000.00) per accident. In the alternative, Professional may rely on a self-insurance program to meet those requirements, but only if the program of self-insurance complies fully with the provisions of the California Labor Code. Determination of whether a self-insurance program meets the standards of the Labor Code shall be solely in the discretion of the Contract Administrator. The insurer, if insurance is provided, or the Professional, if a program of self-insurance is provided, shall waive all rights of subrogation against the City and its officers, officials, employees, and volunteers for loss arising from work performed under this Agreement.

An endorsement shall state that coverage shall not be canceled except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City. Professional shall notify City within fourteen (14) days of notification from Professional's insurer if such coverage is suspended, voided or reduced in coverage or in limits.

The requirement to maintain Statutory Worker's Compensation and Employer's Liability Insurance may be waived by the City upon written verification that Professional does not have any employees.

4.2 **Commercial General and Automobile Liability Insurance.**

4.2.1 **General requirements.** Professional, at its own cost and expense, shall maintain commercial general liability insurance for the term of this Agreement in an amount not less than TWO MILLION DOLLARS ($2,000,000.00) and automobile liability insurance for the term of this Agreement in an amount not less than ONE MILLION DOLLARS ($1,000,000.00). The commercial general liability and automobile liability insurance shall be per occurrence, combined single limit coverage for risks associated with the work contemplated by this Agreement. If a commercial general liability insurance or an automobile liability form or other form with a general

aggregate limit is used, either the general aggregate limit shall apply separately to the work to be performed under this Agreement or the general aggregate limit shall be at least twice the required occurrence limit. Such coverage shall include but shall not be limited to, protection against claims arising from bodily and personal injury, including death resulting therefrom, and damage to property resulting from activities contemplated under this Agreement, including the use of owned and non-owned automobiles.

4.2.2 **Minimum scope of coverage.** Commercial general liability coverage shall be at least as broad as Insurance Services Office Commercial General Liability occurrence form CG 0001 (most recent edition) covering comprehensive General Liability on an "occurrence" basis. Automobile coverage shall be at least as broad as Insurance Services Office Automobile Liability form CA 0001 (most recent edition), Code 1 (any auto). No endorsement shall be attached limiting the coverage.

4.2.3 **Additional requirements.** Each of the following shall be included in the insurance coverage or added as an endorsement to the policy:

a. City and its officers, employees, agents, and volunteers shall be covered as additional insureds with respect to each of the following: liability arising out of activities performed by or on behalf of Professional, including the insured's general supervision of Professional; products and completed operations of Professional; premises owned, occupied, or used by Professional; and automobiles owned, leased, or used by the Professional. The coverage shall contain no special limitations on the scope of protection afforded to City or its officers, employees, agents, or volunteers.

b. The insurance shall cover on an occurrence or an accident basis, and not on a claims-made basis.

c. An endorsement must state that coverage is primary insurance with respect to the City and its officers, officials, employees and volunteers, and that no insurance or self-insurance maintained by the City shall be called upon to contribute to a loss under the coverage.

d. Any failure of Professional to comply with reporting provisions of the policy shall not affect coverage provided to City and its officers, employees, agents, and volunteers.

e. An endorsement shall state that coverage shall not be canceled except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City. Professional shall notify City within fourteen (14) days of notification from Professional's insurer if such coverage is suspended, voided or reduced in coverage or in limits.

4.3 **Professional Liability Insurance.** Professional, at its own cost and expense, shall maintain for the period covered by this Agreement professional liability insurance for licensed professionals performing work pursuant to this Agreement in an amount not less than TWO MILLION DOLLARS ($2,000,000) covering the licensed professionals' errors and omissions.

4.3.1 Any deductible or self-insured retention shall not exceed $150,000 per claim.

4.3.2 An endorsement shall state that coverage shall not be suspended, voided, canceled by either party, or reduced in coverage or in limits, except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City.

4.3.3 The following provisions shall apply if the professional liability coverages are written on a claims-made form:

a. The retroactive date of the policy must be shown and must be before the date of the Agreement.

b. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the Agreement or the work, so long as commercially available at reasonable rates.

c. If coverage is canceled or not renewed and it is not replaced with another claims-made policy form with a retroactive date that precedes the date of this Agreement, Professional must provide extended reporting coverage for a minimum of five (5) years after completion of the Agreement or the work. The City shall have the right to exercise, at the Professional's sole cost and expense, any extended reporting provisions of the policy, if the Professional cancels or does not renew the coverage.

d. A copy of the claim reporting requirements must be submitted to the City prior to the commencement of any work under this Agreement.

4.4 **All Policies Requirements.**

4.4.1 **Acceptability of insurers.** All insurance required by this section is to be placed with insurers with a Bests' rating of no less than A:VII.

4.4.2 **Verification of coverage.** Prior to beginning any work under this Agreement, Professional shall furnish City with certificates of insurance and with original endorsements effecting coverage required herein. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.

4.4.3 **Subcontractors.** Professional shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

4.4.4 **Deductibles and Self-Insured Retentions.** Professional shall disclose to and obtain the approval of City for the self-insured retentions and deductibles before beginning any of the services or work called for by any term of this Agreement.

During the period covered by this Agreement, only upon the prior express written authorization of Contract Administrator, Professional may increase such deductibles or self-insured retentions with respect to City, its officers, employees, agents, and volunteers. The Contract Administrator may condition approval of an increase in deductible or self-insured retention levels with a requirement that Professional procure a bond, guaranteeing payment of losses and related investigations, claim administration, and defense expenses that is satisfactory in all respects to each of them.

4.4.5 **Waiver of Subrogation.** Professional hereby agrees to waive subrogation which any insurer or contractor may require from vendor by virtue of the payment of any loss. Consultant agrees to obtain any endorsements that may be necessary to effect this waiver of subrogation. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the entity for all work performed by the Professional, its employees, agents, and subcontractors.

4.4.6 **Notice of Reduction in Coverage.** In the event that any coverage required by this section is reduced, limited, or materially affected in any other manner, Professional shall provide written notice to City at Professional's earliest possible opportunity and in no case later than five (5) days after Professional is notified of the change in coverage.

4.5 **Remedies.** In addition to any other remedies City may have if Professional fails to provide or maintain any insurance policies or policy endorsements to the extent and within the time herein required, City may, at its sole option exercise any of the following remedies, which are alternatives to other remedies City may have and are not the exclusive remedy for Professional's breach:

- Obtain such insurance and deduct and retain the amount of the premiums for such insurance from any sums due under the Agreement;
- Order Professional to stop work under this Agreement or withhold any payment that becomes due to Professional hereunder, or both stop work and withhold any payment, until Professional demonstrates compliance with the requirements hereof; and/or
- Terminate this Agreement.

Section 5. INDEMNIFICATION AND PROFESSIONAL'S RESPONSIBILITIES.

5.1 **General Requirement.** Professional shall indemnify, defend with counsel selected by the City, and hold harmless the City and its officials, officers, employees, agents, and volunteers from and against any and all losses, liability, claims, suits, actions, damages, and causes of action arising out of any personal injury, bodily injury, loss of life, or damage to property, or any violation of any federal, state, or municipal law or ordinance, to the extent caused, in whole or in part, by the willful misconduct or negligent acts or omissions of Professional or its employees, subcontractors, or agents, by acts for which they could be held strictly liable, or by the quality or character of their work. The foregoing obligation of Professional shall not apply when (1) the injury, loss of life, damage to property, or violation of law arises wholly from the negligence or willful misconduct of the City or its officers, employees, agents, or volunteers and (2) the actions of Professional or its employees, subcontractor, or agents have contributed in no part to the injury, loss of life, damage to property, or violation of law. It is understood that the duty of Professional to indemnify and hold harmless includes the duty to defend as set forth in Section 2778 of the California Civil Code. Acceptance by City of insurance certificates and endorsements required under this Agreement does not relieve Professional from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Professional acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.

5.2 **PERS Indemnification.** In the event that Professional or any employee, agent, or subcontractor of Professional providing services under this Agreement is determined by a court of competent jurisdiction or the California Public Employees Retirement System ("PERS") to be eligible for enrollment in PERS as an employee of City, Professional shall indemnify, defend, and hold harmless City for the payment of any and all employee and/or employer contributions for PERS benefits on behalf of Professional or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of City, and any attorneys' fees and costs incurred by the City to enforce this Section.

5.3 **Design Professionals.** To the extent that the services under this Agreement include design professional services subject to California Civil Code Section 2782.8, as may be amended from time to time, Professional's duty to indemnify under Sections 5.1 and 5.2 shall only be to the maximum extent permitted by California Civil Code Section 2782.8.

Section 6. STATUS OF PROFESSIONAL.

6.1 **Independent Contractor.** At all times during the term of this Agreement, Professional shall be an independent contractor as defined in Labor Code Section 3353, and shall not be an employee of City. Nothing contained in this Agreement shall be construed to be inconsistent with the foregoing relationship or status. City shall have the right to control Professional only insofar as the results of Professional's services rendered pursuant to this Agreement and assignment of personnel pursuant to Subparagraph 1.3; however,

otherwise City shall not have the right to control the means and methods by which Professional accomplishes services rendered pursuant to this Agreement. Professional shall have no power or authority by this Agreement to bind the City in any respect. All employees and agents hired or retained by Professional are employees and agents of Professional and not of the City. The City shall not be obligated in any way to pay any wage claims or other claims made against Professional by any such employees or agents, or any other person resulting from performance of this Agreement.

Notwithstanding any other City, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Professional and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by City, including but not limited to eligibility to enroll in PERS as an employee of City and entitlement to any contribution to be paid by City for employer contributions and/or employee contributions for PERS benefits. Professional shall not allow any employee, agent or subcontractor to become eligible for a claim for PERS benefits.

6.2 **Professional Not an Agent.** Except as City may specify in writing, Professional shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent. Professional shall have no authority, express or implied, pursuant to this Agreement to bind City to any obligation whatsoever.

Section 7. LEGAL REQUIREMENTS.

7.1 **Governing Law.** The laws of the State of California shall govern this Agreement.

7.2 **Compliance with Applicable Laws.** Professional and any subcontractors shall comply with all laws and regulations applicable to the performance of the work hereunder, including but not limited to, the California Building Code, the Americans with Disabilities Act, and any copyright, patent or trademark law. Professional's failure to comply with any law(s) or regulation(s) applicable to the performance of the work hereunder shall constitute a breach of contract.

7.3 **Other Governmental Regulations.** To the extent that this Agreement may be funded by fiscal assistance from another governmental entity, Professional and any subcontractors shall comply with all applicable rules and regulations to which City is bound by the terms of such fiscal assistance program.

7.4 **Licenses and Permits.** Professional represents and warrants to City that Professional and its employees, agents, and any subcontractors have all licenses, permits, qualifications, and approvals of whatsoever nature that are legally required to practice their respective professions. Professional represents and warrants to City that Professional and its employees, agents, any subcontractors shall, at their sole cost and expense, keep in effect at all times during the term of this Agreement any licenses, permits, and approvals that are legally required to practice their respective professions. In addition to the foregoing, Professional and any subcontractors shall obtain and maintain valid Business Licenses from City during the term of this Agreement.

7.5 **Nondiscrimination and Equal Opportunity.** Professional shall not discriminate, on the basis of a person's race, religion, color, national origin, age, physical or mental handicap or disability, medical condition, marital status, sex, or sexual orientation, against any employee, applicant for employment, subcontractor, bidder for a subcontract, or participant in, recipient of, or applicant for any services or programs provided by Professional under this Agreement. Professional shall comply with all applicable federal, state, and local laws, policies, rules, and requirements related to equal opportunity and nondiscrimination in employment, contracting, and the provision of any services that are the subject of this Agreement, including but not limited to the satisfaction of any positive obligations required of Professional thereby.

Professional shall include the provisions of this Subsection in any subcontract approved by the Contract Administrator or this Agreement.

Section 8. TERMINATION AND MODIFICATION.

8.1 **Termination.** City may cancel this Agreement at any time and without cause upon written notification to Professional.

Professional may cancel this Agreement upon _____ days' written notice to City and shall include in such notice the reasons for cancellation.

In the event of termination, Professional shall be entitled to compensation for services performed to the effective date of termination; City, however, may condition payment of such compensation upon Professional delivering to City any or all documents, photographs, computer software, video and audio tapes, and other materials provided to Professional or prepared by or for Professional or the City in connection with this Agreement.

8.2 **Extension.** City may, in its sole and exclusive discretion, extend the end date of this Agreement beyond that provided for in Subsection 1.1. Any such extension shall require a written amendment to this Agreement, as provided for herein. Professional understands and agrees that, if City grants such an extension, City shall have no obligation to provide Professional with compensation beyond the maximum amount provided for in this Agreement. Similarly, unless authorized by the Contract Administrator, City shall have no obligation to reimburse Professional for any otherwise reimbursable expenses incurred during the extension period.

8.3 **Amendments.** The Parties may amend this Agreement only by a writing signed by all the Parties.

8.4 **Assignment and Subcontracting.** City and Professional recognize and agree that this Agreement contemplates personal performance by Professional and is based upon a determination of Professional's unique personal competence, experience, and specialized personal knowledge. Moreover, a substantial inducement to City for entering into this Agreement was and is the professional reputation and competence of Professional.

Professional may not assign this Agreement or any interest therein without the prior written approval of the Contract Administrator. Professional shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors noted in the proposal, without prior written approval of the Contract Administrator.

8.5 **Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between City and Professional shall survive the termination of this Agreement.

8.6 **Options upon Breach by Professional.** If Professional materially breaches any of the terms of this Agreement, City's remedies shall include, but not be limited to, the following:

8.6.1 Immediately terminate the Agreement;

8.6.2 Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Professional pursuant to this Agreement;

8.6.3 Retain a different Professional to complete the work described in Exhibit A not finished by Professional; or

8.6.4 Charge Professional the difference between the cost to complete the work described in Exhibit A that is unfinished at the time of breach and the amount that City would have paid Professional pursuant to Section 2 if Professional had completed the work.

Section 9. KEEPING AND STATUS OF RECORDS.

9.1 **Records Created as Part of Professional's Performance.** All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Professional prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the City. Professional hereby agrees to deliver those documents to the City upon termination of the Agreement. It is understood and agreed that the documents and other materials, including but not limited to those described above, prepared pursuant to this Agreement are prepared specifically for the City and are not necessarily suitable for any future or other use. City and Professional agree that, until final approval by City, all data, plans, specifications, reports and other documents are confidential and will not be released to third parties without prior written consent of both parties.

9.2 **Professional's Books and Records.** Professional shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services or expenditures and disbursements charged to the City under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Professional pursuant to this Agreement.

9.3 **Inspection and Audit of Records.** Any records or documents that Section 9.2 of this Agreement requires Professional to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the City. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds TEN THOUSAND DOLLARS ($10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of City or as part of any audit of the City, for a period of three (3) years after final payment under the Agreement.

Section 10 MISCELLANEOUS PROVISIONS.

10.1 **Attorneys' Fees.** If a Party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing Party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that Party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.

10.2 **Venue.** In the event that either Party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Sacramento or in the United States District Court for the Eastern District of California.

10.3 **Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

10.4 **No Implied Waiver of Breach**. The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

10.5 **Successors and Assigns.** The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.

10.6 **Use of Recycled Products.** Professional shall prepare and submit all reports, written studies and other printed material on recycled paper to the extent it is available at equal or less cost than virgin paper.

10.7 **Conflict of Interest.** Professional may serve other clients, but none whose activities within the corporate limits of City or whose business, regardless of location, would place Professional in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*

Professional shall not employ any City official in the work performed pursuant to this Agreement. No officer or employee of City shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.*

Professional hereby warrants that it is not now, nor has it been in the previous twelve (12) months, an employee, agent, appointee, or official of the City. If Professional was an employee, agent, appointee, or official of the City in the previous twelve months, Professional warrants that it did not participate in any manner in the forming of this Agreement. Professional understands that, if this Agreement is made in violation of Government Code §1090 *et.seq.*, the entire Agreement is void and Professional will not be entitled to any compensation for services performed pursuant to this Agreement, including reimbursement of expenses, and Professional will be required to reimburse the City for any sums paid to the Professional. Professional understands that, in addition to the foregoing, it may be subject to criminal prosecution for a violation of Government Code § 1090 and, if applicable, will be disqualified from holding public office in the State of California.

10.8 **Solicitation.** Professional agrees not to solicit business at any meeting, focus group, or interview related to this Agreement, either orally or through any written materials.

10.9 **Contract Administration.** This Agreement shall be administered by _____ ("Contract Administrator"). All correspondence shall be directed to or through the Contract Administrator or his or her designee.

10.10 **Notices.** Any written notice to Professional shall be sent to:

_____
_____
_____

Email Address (for Insurance Update Requests)
_____

Any written notice to City shall be sent to:

_____
_____
_____

10.11 **Professional Seal.** Where applicable in the determination of the Contract Administrator or when required by law, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation. The stamp/seal shall be in a block entitled "Seal and Signature of Registered Professional with report/design responsibility," as in the following example.

_____ Seal and Signature of Registered Professional with report/design responsibility.

10.12 **Integration.** This Agreement, including the scope of work attached hereto and incorporated herein as Exhibit A, and the compensation schedule attached hereto and incorporated herein as Exhibit B, represents the entire and integrated agreement between City and Professional and supersedes all prior negotiations, representations, or agreements, either written or oral.

10.13 **IRS Form W-9.** Professional shall complete and submit Internal Revenue Service Form W-9 to the City before execution of this Agreement. The City's Finance Director shall have authority to waive this requirement.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the day and year first set forth above, which date shall be considered by the Parties to be the effective date of this Agreement.

CITY OF RANCHO CORDOVA

_____
Cyrus Abhar, City Manager

Date: _____

Attest:

_____
Stacy Leitner, CMC, City Clerk

Date: _____

Approved as to Form:

_____
Adam U. Lindgren, City Attorney

PROFESSIONAL

_____
[NAME, TITLE]

Date: _____

APPENDIX B
INSURANCE REQUIREMENTS

INSURANCE REQUIREMENTS. Before beginning any work under this Agreement, Professional, at its own cost and expense, shall procure "occurrence coverage" insurance against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the Professional and its agents, representatives, employees, and subcontractors. Professional shall provide proof satisfactory to City of such insurance that meets the requirements of this section and under forms of insurance satisfactory in all respects to the City. Professional shall maintain the insurance policies required by this section throughout the term of this Agreement. The cost of such insurance shall be included in the Professional's bid. Professional shall not allow any subcontractor to commence work on any subcontract until Professional has obtained all insurance required herein for the subcontractor(s) and provided evidence thereof to City. Verification of the required insurance shall be submitted and made part of this Agreement prior to execution. Professional shall maintain all required insurance listed herein for the duration of this Agreement.

1 **Workers' Compensation.** Professional shall, at its sole cost and expense, maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Professional. The Statutory Workers' Compensation Insurance and Employer's Liability Insurance shall be provided with limits of not less than ONE MILLION DOLLARS ($1,000,000.00) per accident. In the alternative, Professional may rely on a self-insurance program to meet those requirements, but only if the program of self-insurance complies fully with the provisions of the California Labor Code. Determination of whether a self-insurance program meets the standards of the Labor Code shall be solely in the discretion of the Contract Administrator. The insurer, if insurance is provided, or the Professional, if a program of self-insurance is provided, shall waive all rights of subrogation against the City and its officers, officials, employees, and volunteers for loss arising from work performed under this Agreement.

An endorsement shall state that coverage shall not be canceled except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City. Professional shall notify City within fourteen (14) days of notification from Professional's insurer if such coverage is suspended, voided or reduced in coverage or in limits.

The requirement to maintain Statutory Worker's Compensation and Employer's Liability Insurance may be waived by the City upon written verification that Professional does not have any employees.

2 **Commercial General and Automobile Liability Insurance.**

2.1 **General requirements.** Professional, at its own cost and expense, shall maintain commercial general liability insurance for the term of this Agreement in an amount not less than TWO MILLION DOLLARS ($2,000,000.00) and automobile liability insurance for the term of this Agreement in an amount not less than ONE MILLION DOLLARS ($1,000,000.00). The commercial general liability and automobile liability insurance shall be per occurrence, combined single limit coverage for risks

associated with the work contemplated by this Agreement. If a commercial general liability insurance or an automobile liability form or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to the work to be performed under this Agreement or the general aggregate limit shall be at least twice the required occurrence limit. Such coverage shall include but shall not be limited to, protection against claims arising from bodily and personal injury, including death resulting therefrom, and damage to property resulting from activities contemplated under this Agreement, including the use of owned and non-owned automobiles.

2.2 **Minimum scope of coverage.** Commercial general liability coverage shall be at least as broad as Insurance Services Office Commercial General Liability occurrence form CG 0001 (most recent edition) covering comprehensive General Liability on an "occurrence" basis. Automobile coverage shall be at least as broad as Insurance Services Office Automobile Liability form CA 0001 (most recent edition), Code 1 (any auto). No endorsement shall be attached limiting the coverage.

2.3 **Additional requirements.** Each of the following shall be included in the insurance coverage or added as an endorsement to the policy:

a. City and its officers, employees, agents, and volunteers shall be covered as additional insureds with respect to each of the following: liability arising out of activities performed by or on behalf of Professional, including the insured's general supervision of Professional; products and completed operations of Professional; premises owned, occupied, or used by Professional; and automobiles owned, leased, or used by the Professional. The coverage shall contain no special limitations on the scope of protection afforded to City or its officers, employees, agents, or volunteers.

b. The insurance shall cover on an occurrence or an accident basis, and not on a claims-made basis.

c. An endorsement must state that coverage is primary insurance with respect to the City and its officers, officials, employees and volunteers, and that no insurance or self-insurance maintained by the City shall be called upon to contribute to a loss under the coverage.

d. Any failure of Professional to comply with reporting provisions of the policy shall not affect coverage provided to City and its officers, employees, agents, and volunteers.

e. An endorsement shall state that coverage shall not be canceled except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City. Professional shall notify City within

fourteen (14) days of notification from Professional's insurer if such coverage is suspended, voided or reduced in coverage or in limits.

3 **Professional Liability Insurance.** Professional, at its own cost and expense, shall maintain for the period covered by this Agreement professional liability insurance for licensed professionals performing work pursuant to this Agreement in an amount not less than TWO MILLION DOLLARS ($2,000,000) covering the licensed professionals' errors and omissions.

3.1 Any deductible or self-insured retention shall not exceed $150,000 per claim.

3.2 An endorsement shall state that coverage shall not be suspended, voided, canceled by either party, or reduced in coverage or in limits, except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City.

3.3 The following provisions shall apply if the professional liability coverages are written on a claims-made form:

a. The retroactive date of the policy must be shown and must be before the date of the Agreement.

b. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the Agreement or the work, so long as commercially available at reasonable rates.

c. If coverage is canceled or not renewed and it is not replaced with another claims-made policy form with a retroactive date that precedes the date of this Agreement, Professional must provide extended reporting coverage for a minimum of five (5) years after completion of the Agreement or the work. The City shall have the right to exercise, at the Professional's sole cost and expense, any extended reporting provisions of the policy, if the Professional cancels or does not renew the coverage.

d. A copy of the claim reporting requirements must be submitted to the City prior to the commencement of any work under this Agreement.

4 **All Policies Requirements.**

4.1 **Acceptability of insurers.** All insurance required by this section is to be placed with insurers with a Bests' rating of no less than A:VII.

4.2 **Verification of coverage.** Prior to beginning any work under this Agreement, Professional shall furnish City with certificates of insurance and with original endorsements effecting coverage required herein. The certificates and endorsements for each insurance policy are to be signed by a person authorized

by that insurer to bind coverage on its behalf. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.

4.3 **Subcontractors.** Professional shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

4.4 **Deductibles and Self-Insured Retentions.** Professional shall disclose to and obtain the approval of City for the self-insured retentions and deductibles before beginning any of the services or work called for by any term of this Agreement.

During the period covered by this Agreement, only upon the prior express written authorization of Contract Administrator, Professional may increase such deductibles or self-insured retentions with respect to City, its officers, employees, agents, and volunteers. The Contract Administrator may condition approval of an increase in deductible or self-insured retention levels with a requirement that Professional procure a bond, guaranteeing payment of losses and related investigations, claim administration, and defense expenses that is satisfactory in all respects to each of them.

4.5 **Waiver of Subrogation.** Professional hereby agrees to waive subrogation which any insurer or contractor may require from vendor by virtue of the payment of any loss. Consultant agrees to obtain any endorsements that may be necessary to effect this waiver of subrogation. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the entity for all work performed by the Professional, its employees, agents, and subcontractors.

4.6 **Notice of Reduction in Coverage.** In the event that any coverage required by this section is reduced, limited, or materially affected in any other manner, Professional shall provide written notice to City at Professional's earliest possible opportunity and in no case later than five (5) days after Professional is notified of the change in coverage.

5 **Remedies.** In addition to any other remedies City may have if Professional fails to provide or maintain any insurance policies or policy endorsements to the extent and within the time herein required, City may, at its sole option exercise any of the following remedies, which are alternatives to other remedies City may have and are not the exclusive remedy for Professional's breach:

- Obtain such insurance and deduct and retain the amount of the premiums for such insurance from any sums due under the Agreement;

- Order Professional to stop work under this Agreement or withhold any payment that becomes due to Professional hereunder, or both stop work and withhold any payment, until Professional demonstrates compliance with the requirements hereof; and/or

- Terminate this Agreement.

APPENDIX C
ADDITIONAL SPECIAL PROVISIONS

STANDARD CONSTRUCTION SPECIFICATIONS

The County of Sacramento, Municipal Services Agency, Standard Construction Specifications (Construction Specifications), adopted January 2016 and all revisions pertaining thereto, and these Special Provisions shall control all work to be done under this contract. A copy of the Standard Construction Specifications may be obtained at the Cashier's window, County Administration Building, 827 Seventh Street, Room 105, Sacramento, CA 95814.

STATE SPECIFICATIONS AND STATE STANDARD PLANS

State Specifications and State Standard Plans, when referred to, shall be the 2018 issue.

Copies of the State Specifications and State Standard Plans may be obtained from the State of California, Department of Transportation, Publications Unit, 1900 Royal Oaks Drive, Sacramento, CA 95815; telephone (916) 263-0822.

PRECEDENCE

In the event of a conflict between the Sacramento County Standard Construction Specifications and the State Specifications/Standard Plans, the Standard Constructions Specifications shall govern. These Special Provisions shall govern over both the Standard Construction Specifications and State Specifications/Standard Plans in the event of a conflict.

CODES AND LEGAL REQUIREMENTS

(a) All reference to codes, specifications, and standards in the contract documents shall mean, and are intended to be, the latest editions, amendments, and/or revisions of such reference documents in effect, as of the date of this contract.

(b) Authorities shall apply the minimum work requirements available to any work done for this project. Nothing described in these contract documents shall be construed to permit work not conforming to the most stringent of applicable codes and regulations.

(c) When contract documents call for materials or construction of better quality or larger size than required by applicable codes, laws, rules or regulations, the contract documents shall take precedence.

PAYROLL RECORDS

The proposer's attention is directed to Section 6-1.03, "Payroll Records," of Construction Specifications). Consultant shall comply with Labor Code Section 1776. Regulations implementing Section 1776 are located in Section 16000 and Sections 16401 through 16403 of Title 8, California Code of Regulations. The Consultant shall be responsible for compliance by the Consultant's Subconsultants.

PREVAILING WAGE

The proposer's attention is directed to Section 6-1.02, "Prevailing Wage," of the Construction Specifications. Pursuant to Labor Code Section 1770, the Consultant and the Consultant's Subconsultants shall pay not less than the prevailing rate of per diem wages, including, but not limited to, overtime, Saturday, Sunday, and holiday work, travel and subsistence, as determined by the Director of the California Department of Industrial Relations pursuant to Labor Code Section 1773.

PROPOSAL REQUIREMENTS AND CONDITIONS
The proposer's attention is directed to these Special Provisions for the requirements and conditions which proposer must observe in the preparation of the proposal and submission of the cost proposal.

Proposers must fully acquaint themselves with the existing conditions relating to the proposed work within the limits of the City of Rancho Cordova. The Proposers must thoroughly examine and familiarize themselves with all contract documents.

AWARD AND EXECUTION OF THE CONTRACT
The proposer's attention is directed to the provisions in Section 3 "Award and Execution of Contract" of the Construction Specifications.

SPECIFICATIONS AND PLANS
In case of conflict between the Construction Specifications and these Special Provisions, these Special Provisions shall take precedence over and be used in lieu of such conflicting portions.

COMPLIANCE WITH STANDARD TERMS & CONDITIONS
Proposer agrees to be bound by the City's standard contract conditions, a sample of which is attached to this RFP (Appendix A), and to all other terms and conditions in this RFP.

BEGINNING OF WORK AND TIME OF COMPLETION
Attention is directed to the provisions in Section 7-1, "Beginning of Work" and in Section 7-15, "Time of Completion" of the Construction Specifications and these Special Provisions.

The City anticipates the contract term will start on December 1, 2022 or earlier dependent on formal execution of the contract. The Consultant shall commence full maintenance services on upon contract execution and provide continuous services until December 1, 2025. If mutually agreed, the contract may be extended for two additional years.

Failure of the Consultant to diligently prosecute the work as defined herein will be considered as grounds for termination of the contract.

Failure to provide an adequate working force shall be considered as grounds for the termination of the contract.

Unless extended by the Public Works Director, **this Contract shall end on December 1, 2025**. However, this Agreement may be terminated by the City upon thirty (30) calendar days prior written notice addressed to the last known address of the Consultant. In the event of such termination, the Consultant shall be paid for all work, which has been completed up to the effective date of such termination.

PRESERVATION OF PROPERTY
Attention is directed to Section 6-21 "Preservation of Property" of the Construction Specifications and these Special Provisions.

The Consultant shall take every precaution to protect all public and private property during the performance of this contract. Any damages caused by the Consultant's personnel or equipment will promptly be repaired to the condition existing before the damage. If, in the opinion of the Contract

Manager, repair is not possible, the damaged facilities will be replaced in kind and size. All costs for such repairs or replacements shall be the sole responsibility of the Consultant. Damages to City facilities due to the Consultant's lack of performance in accordance with these specifications are the Consultant's responsibility.

EXISTING UTILITIES

Attention is directed to Section 6-16 "Existing Utilities" of the Construction Specifications and these Special Provisions.

The toll-free number for Underground Service Alert (U.S.A.) is (800) 642-2444. The Consultant is required to call this number two working days (48 hours) in advance of performing excavation work.

The Consultant shall take adequate measures to ensure that their operations do not harm any existing underground facilities not specifically mentioned or shown on the plans. Damages to any utilities due to the Consultant's negligence or lack of performance in accordance with these specifications are the Consultant's responsibility.

SUPPLIES, UTILITIES, AND EQUIPMENT

The City will provide debris disposal bins at the Bear Hollow Pump Station at 10842 N. Mather Blvd in Rancho Cordova and will pay for other disposal fees (e.g. landfill fees) for trash and debris removed from the City's pump station facilities. The City will pay service fees for utilities including water, electricity, mobile broadband data, and other necessary services required to ensure proper operation and performance of the City's six (6) pump stations.

The Consultant shall furnish all other tools, equipment, and labor needed to provide a high level of workmanship, to ensure continuous and safe operation, and complete work in accordance with these specifications.

REGULATIONS AND CONDUCT OF WORK

The Consultant shall plan and conduct the work to comply with local, State, and Federal government agencies' applicable rules, regulations, codes, and ordinances to adequately safeguard persons and property from injury. The Consultant shall direct the performance of the work in compliance with reasonable safety regulations and work practices, and with applicable federal, state, and local laws, rules and regulations including but not limited to "Occupational Safety and Health Standards" promulgated by the U.S. Secretary of Labor, and Safety Orders of the California Division of Industrial Safety.

PERSONNEL

All work shall be performed by qualified and trained personnel. Experience must include use of typical tools and operation of commonly used equipment. All workers shall be neat and orderly in appearance.

<u>Identification</u>

Consultant's employees shall be required to wear a clean uniform bearing the Consultant's name. Employees who normally and regularly come into direct contact with the public shall bear some means of individual identification, such as a name tag or identification card.

<u>Licenses</u>

Consultant and staff who are supplying services under this agreement shall at all times possess and carry a valid driver's license issued by the State of California and have all applicable certifications and licenses.

CONDUCT

Consultant's employees, officers and representatives shall not identify themselves as being employees of the City of Rancho Cordova. Employees shall conduct themselves in such a manner that reflects positively on the City. Drivers shall be courteous and conscientious when driving to, at and from pump station sites. The City retains the right to require a particular operator be removed from working on this contract.

Safety Standards and Accident Prevention

The Consultant shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work. The Consultant shall comply with all applicable Laws and Regulations relating to the safety and protection of persons and property.

DISMISSAL OF UNSATISFACTORY EMPLOYEES

Attention is directed to Section 7 of the Construction Specifications and these Special Provisions.

The Consultant shall only furnish workers who are competent and skilled for work under this contract. If, in the opinion of the Public Works Director, an employee of the Consultant is disorderly, refuses to perform in accordance with the contract specifications, threatens or uses abusive language while on City property, does not meet safety requirements or is otherwise unsatisfactory, that employee shall be removed from all work under this contract. Consultant shall remove an unsatisfactory employee from contract sites immediately following notification.

All personnel employed by the Consultant shall comply with the City's Harassment policy. Non-compliance with this policy shall be grounds for dismissal under the provisions of this Section. A copy of this policy will be provided to the Consultant prior to commencing work.

Failure by the Consultant to remove an unsatisfactory employee from contract sites will result in withholding of payment. Failure by the Consultant to permanently replace an unsatisfactory employee will result in formal written warning (30-day notice) to the Consultant specifying that the employee must be replaced. Failure by the Consultant to replace an unsatisfactory employee within the 30-day time period will result in termination of this contract.

In the event of termination, the City shall be liable only for payment of those services performed and accepted by the City prior to the date of termination; and the Consultant and his surety shall be liable and assessed for any and all costs for the re-procurement of the contract services.

PAYMENT

Attention is directed to Section 8 of the Construction Specifications. The following shall be substituted with regard to invoicing procedure.

At the end of each month, the Consultant shall submit invoice(s) to the City for regular monthly maintenance work, and unscheduled emergency maintenance work requested and approved by the City. The City will pay the Consultant within thirty (30) calendar days of receipt of correct invoice. A monthly report summarizing the inspections and activities completed at each pump station within the month shall be submitted with the monthly invoice. There will be no retention from the payments for normal maintenance work. A five (5) percent retention will be made on replacement construction of pipe, catch basins, and other appurtenances. There will be no retention from payments for emergency work.

The Consultant's routine maintenance invoice shall include;

Invoice Number
Invoice Date
City's Contract Number
Period Service Provided (Date from – Date to)
A breakdown of each work order completed with a description of the work performed, quantity of the work performed, unit cost, and total cost for the work performed.

The Consultant's emergency invoice shall include;

Invoice Number
Invoice Date
City's Contract Number
Period Service Provided (Date from – Date to)
A breakdown of each work order completed with a description of the work performed, job itemization giving employee(s)' actual hours worked, equipment and material costs, and total cost for the work performed.

Billing shall be submitted to the following address:

City of Rancho Cordova
Public Works Department
2729 Prospect Park Drive
Rancho Cordova, CA 95670
ATTN: Dalia Fadl

WITHHOLDING OF PAYMENT

For work deemed by the Contract Manager as not meeting the requirements of the specifications, the City shall withhold monthly payments or percentages thereof for work not completed, or until work is completed as per contract specifications. The City shall withhold monthly payments or percentages thereof for work that is not completed on schedule.

To provide funds to cover the cost of any City of Rancho Cordova facilities or plant materials damaged by the Consultant, the City shall withhold monthly payments until the damages are repaired. In the event repairs are not made, the City shall withhold monthly maintenance payments to fund the necessary repairs. The Consultant shall be responsible for damages to the City of Rancho Cordova facilities or plant materials due to the Consultant's failure to perform the services in accordance with these specifications. Expenses to cover damages shall be solely the Consultant's, and repairs shall meet approval of the Contract Manager.

FAILURE TO PERFORM

If the Consultant, or his representative, fails to perform in accordance with the terms and conditions of this contract, the Contract Manager will specify the reasons and locations as applicable by written correspondence. Failure by the Consultant to correct any deficiencies within one (1) calendar week of notification by the contract manager may result in withholding of payment. Failure by the Consultant to correct any deficiencies within two (2) calendar weeks or more may result in formal written warning (30-day notice) to the Consultant specifying that such deficiencies must be corrected. Failure by the Consultant to correct such deficiencies within the 30-day specified time period may result in termination of this contract.

In the event of termination, the City shall be liable only for payment of those services performed and accepted by the City prior to the date of termination. Any damages to property caused by the Consultant's inability to meet specifications shall be recovered by withholding payments. The Consultant and his surety shall be liable and assessed for any and all costs for the re-procurement of the contract services and damages to City facilities or plant materials.

INSPECTION

The Consultant may receive an inspection report from the Contract Manager. This report/written documentation will indicate any deficiencies in the work performance of the Consultant. The Contract Manager will inform the Consultant of urgent deficiencies for immediate attention or repairs. Inspection by City staff will occur the following day the Consultant has serviced the areas.

Lack of inspections by City staff does not relieve the Consultant of their obligations to provide services as required by these specifications. Lack of receipt of inspection reports does not relieve the Consultant of his obligations to provide services as required by these specifications. Schedules as required by these specifications shall be submitted and used as a guide for City Staff Inspection schedules. Inspections will be scheduled to occur the following day the Consultant has serviced a specific area(s), or as agreed to between City Staff and the Consultant.

TERMINATION

Any contract resulting from this RFP may be canceled by the City upon thirty (30) calendar days advance notice in writing at City's sole discretion. Consultant may cancel this agreement upon ninety (90) calendar days advance notice in writing to the City.

INSURANCE

The Consultant, upon being notified of being awarded the contract, shall have their Certificate of Insurance delivered to City of Rancho Cordova Public Works Department, 2729 Prospect Park Drive, Rancho Cordova, CA 95670, Attn: Dalia Fadl. Consultant's insurance shall comply with all insurance requirements as shown in Appendix B. No goods or services shall be rendered by the Consultant until a valid Certificate of Insurance is on file with The City of Rancho Cordova.

INDEMNITY

The Consultant indemnifies the City as stated in Section 6-2 of the Construction Specifications.

GUARANTEE

Excepting only items of routine maintenance, ordinary wear and unusual abuse or neglect, Consultant shall guarantee all work executed by Consultant and Subconsultants, and all supplies, materials and devices of whatsoever nature incorporated in, or attached to the work, or otherwise delivered to City as a part of the work pursuant to the Contract, to be free of all defects of workmanship and materials for a period of one year after acceptance of work under each Work Order issued as a part of the Contract by the City. Consultant shall repair or replace any or all such work or material, together with all or any other work or material which may be displaced or damaged in so doing, that may prove defective in workmanship or material within said one (1) year guarantee period without expense or charge of any nature whatsoever to the City.

In the event that the Consultant shall fail to comply with the conditions of the foregoing guarantee within ten (10) working days after being notified of the defect in writing, City shall have the right, but

shall not be obligated to repair, or obtain the repair of, the defect and Consultant shall pay to City on demand all costs and expense of such repair.

Notwithstanding anything herein to the contrary, in the event that any defect in workmanship or material covered by the foregoing guarantee results in a condition which constitutes an immediate hazard to the health or safety, or any property interest, or any person, City shall have the right to immediately repair, or cause to be repaired, such defect, and Consultant shall pay to City on demand all costs and expense of such repair. The foregoing statement relating to hazards to health, safety or property shall be deemed to include either temporary or permanent repairs, which may be required as determined in the sole discretion and judgment of City.

Before beginning work, the Consultant shall file one bond with the City, made payable to the City. The bond shall be issued by a surety company authorized to do business in the State of California, and shall be maintained during the entire life of the Agreement at the expense of the Consultant. The bond shall be for the full contract amount and shall guarantee the faithful performance of the Agreement.

APPENDIX D
TECHNICAL PROVISIONS

In performing the requested Stormwater Pump Station Operations and Maintenance services, tasks performed by the Consultant shall include, but are not limited to, the following:

A. Routine Inspections and Operations & Maintenance

a. Perform routine inspections, operations, maintenance, and record keeping in accordance with the City's Station Operation Manuals (Appendix E) to ensure proper operation and performance of the City's six (6) pump stations.
b. Maintain a log of parts, components, and repairs as necessary for the proper operation of the pump stations.
c. Order and store all materials, both durable and consumable, and supplies necessary to operate, maintain and repair the pump stations on the City's behalf. All spare parts, materials and supplies shall be stored in an orderly manner
d. Operate the SCADA system and maximize facility operation efficiency and optimization.
e. Understand the hydraulics associated with each pump station facility to determine appropriate actions during normal or emergency operating conditions.
f. Understand the scheduled or unscheduled river flow releases along the American River to determine appropriate actions during normal or emergency operating conditions for those pumping facilities affected by such flows.
g. Report to City staff on facility operations, status, repairs, costs, budget on a monthly basis. The Consultant shall submit to the City a routine inspection report, in a format approved by the City, outlining any areas that should be addressed and provide recommendations for any repair or maintenance work needed.
h. Review, maintain and update the City's Station Operation Manuals as necessary to reflect any changes in routine operations or procedures, such as new processes or equipment, necessary to ensure proper operation and performance of the pump stations.
i. Coordinate with the City's Information Technology Division to ensure proper functionality of pump station software and mobile broadband data communication.
j. Perform inspection and manage the proper operation and performance of the auto dialer alarm system.
k. Assist the City with regulatory compliance requirements for routine pump station operations including data collection, reporting, permitting, and coordinating inspections by regulatory agencies
l. Serve as the City's liaison and representative in matters related to the operation of facilities and systems including meetings with regulatory agencies and other consultants working with the City

B. Repair and Upgrade Coordination

a. Manage corrective, preventive, and predictive maintenance of all pump station assets, including repairs, upgrades, and replacements. The Consultant shall perform or manage all of the preventive maintenance of the equipment as recommended by and at the frequency recommended by the manufacturer or to the standard deemed acceptable by the City.
b. Identify and expeditiously communicate to the City's Contract Manager any necessary corrective maintenance and repair work that must be performed immediately.

c. Coordinate and manage corrective maintenance, repairs, upgrades, replacements with the City and vendors and contractors approved by the City to provide services, materials, and equipment.
d. Coordinate software and communication equipment upgrades with the City and vendors and contractors approved by the City to provide services, materials, and equipment
e. Track equipment repair history and costs
f. At a frequency determined by the City, conduct condition assessments of the pump stations and produce technical memorandums that include recommended maintenance or capital improvement projects to ensure the proper functionality of the City's six (6) pump stations.
g. Provide engineering design services, technical consulting, construction management, and general construction support services for pump station improvement projects. Services requested by the City may include development of improvement plans, project cost estimates, request for proposals.

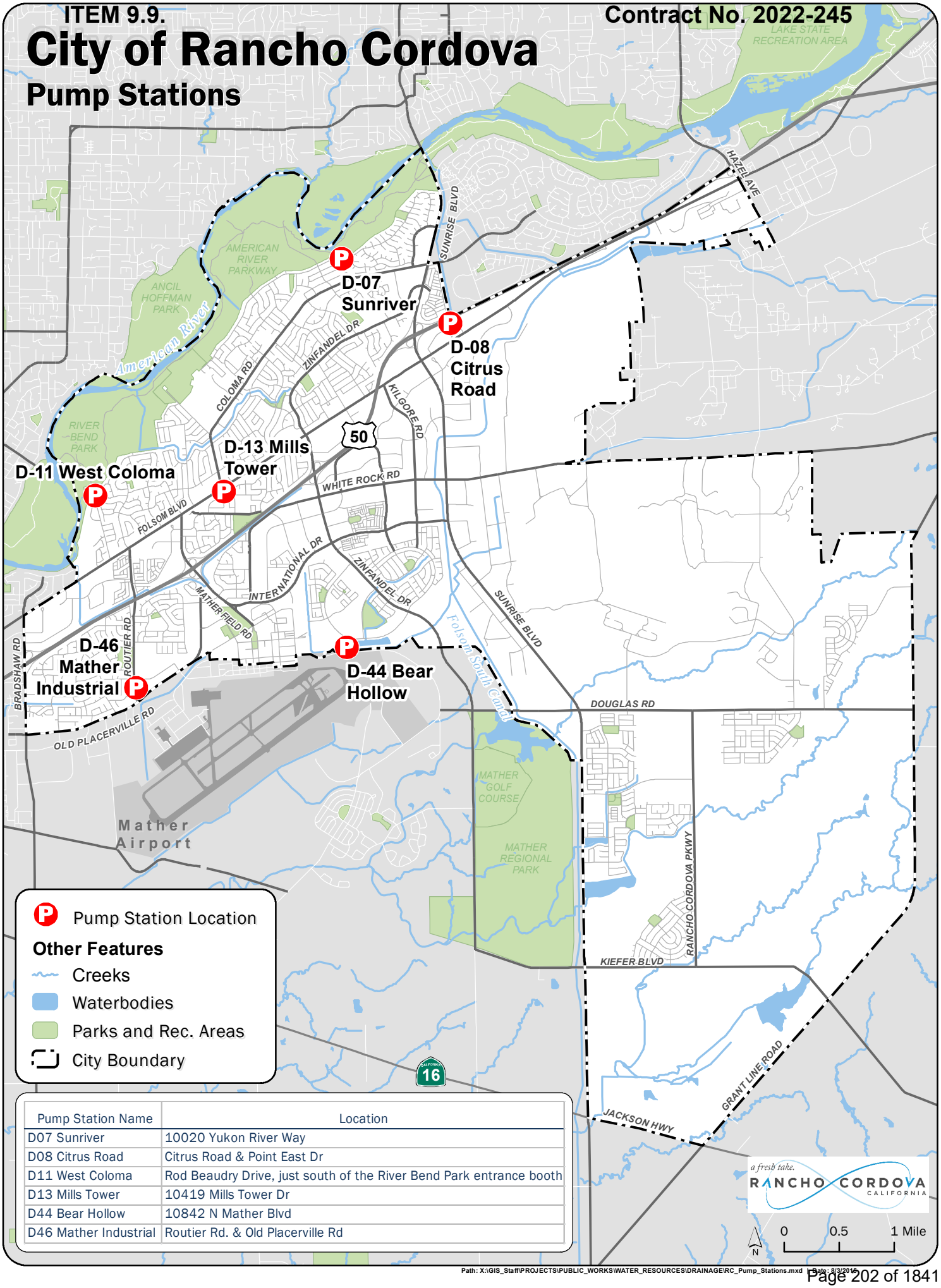
C. On-call Emergency Response

a. Assess alarms and respond to the facility **within 60 minutes** when required. Consultant shall ensure the personnel responding to an alarm at the facility meets the requirements of the Facility Operator or Operations Supervisor to assess the alarm and begin troubleshooting and resolving the problem. Consultant shall coordinate with City staff to manage any repairs or maintenance that may be required resulting from an alarm.
b. Provide 24-hour per day on-call availability, 365-days per year for operations and responding to alarms and emergencies as part of an emergency action plan.
c. Provide and update emergency and on-call operations personnel list with phone numbers that the City can use to contact Consultant in the event of an emergency
d. Coordinate and facilitate back up power at necessary facilities during power outages with City's designated contractor.
e. Ahead of a large storm event, inspect all six pump stations to assess their condition and ensure there are no issues or service disruptions.

APPENDIX E
OVERVIEW MAP OF CITY OF RANCHO CORDOVA PUMP STATIONS AND REFERENCE GUIDES

City of Rancho Cordova

Pump Stations



Pump Station Name	Location
D07 Sunriver	10020 Yukon River Way
D08 Citrus Road	Citrus Road & Point East Dr
D11 West Coloma	Rod Beaudry Drive, just south of the River Bend Park entrance booth
D13 Mills Tower	10419 Mills Tower Dr
D44 Bear Hollow	10842 N Mather Blvd
D46 Mather Industrial	Routier Rd. & Old Placerville Rd

Path: X:\GIS_Staff\PROJECTS\PUBLIC_WORKS\WATER_RESOURCES\DRAINAGE\RC_Pump_Stations.mxd | Date: 8/3/2016

CITY OF RANCHO CORDOVA

Quick Reference Guide

STATION OPERATION

D-07

Sunriver

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Trash Rack 3
Pump Discharge Flap Gates (2 located in discharge vault): 4
Gravity Bypass Flap Gate (1 located in discharge vault): 4
Access Control Rack (at American River): 4
Basin Cleaning and Maintenance: 4
Bubblers: 4
Pump & Impeller Inspection: 4
Lubrication: 4
Motors: 4
Wetwell Cleaning: 5
General Cleaning: 5
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Appendix A Vicinity Map
Appendix B Watershed Map
Appendix C Sensor Location Map
Appendix D Alarm List

Section 1 – Purpose of Guide

This guide is a summary of operations and maintenance procedures for the D-07 Sunriver Drainage Pump Station, which can be identified in Appendix A "Vicinity Map".

Section 2 – Purpose of the D-07 Pump Station

The purpose of the D-07 Sunriver pump station is to pump storm water from drainage Shed 12 into the American River. During heavy storm events, drainage water will flow into the pump station inlet basin and wet well from the surrounding area drainage systems. Storm water entering D-07 Sunriver is then pumped directly into the American River. In Appendix B "WaterShed Map" is a map that shows the watershed that contributes runoff to this facility. The watershed is 175 acres, or 0.27 square miles.

Section 3 - Background

History:

The D-07 Sunriver pump station is located at the west end of Yukon River Way. It was originally constructed in 1979, and consists of 2 electric powered pumps, 1 inlet basin, 1 wet well, 1 discharge vault, a 66" gravity bypass conduit, and 1 outfall structure.

Design Summary:

The D-07 Sunriver pump station was designed to handle a 100-year storm event, and will pump storm water as needed.

Section 4 – Station Operational Parameters

Diesel Engine and Generator:

There is no back-up generator located at the D-07 Sunriver pump station.

In the event of a power failure, a temporary portable generator sized at 200 kW would be sufficient to operate one 100 H.P. pump, or 400 kW to operate both pumps. Currently there is a portable generator, which is located at the D-13 Mills Tower Pump Station that will operate the D-07 Sunriver Pump Station. However, electrical connections are currently not available at the D-07 Sunriver Pump Station. It is anticipated the City will modify the D-07 Pump Station to connect a portable generator in the near future.

Slide Gates:

Two manual slide gates located in the inlet basin are used to isolate the pump station and gravity bypass conduit from the upstream drainage facilities during the sump annuals, or in case emergency access to the wet well is needed.

The gravity bypass slide gate is typically left in the open position to allow drainage water to flow directly into the discharge vault and into the American River, which minimizes pump usage. The gravity bypass slide gate should be closed when the flow rate on the American River reaches Stage 3 (releases of 50,000 CFS or higher from Nimbus Dam).

Inspect annually to ensure that the slide gates are able to open and close completely, and they should be checked by fully opening and closing the gates. Leave gates in open position after inspection.

Pumps:

There are two pumps installed at the pump station. The pumps each have 100 H.P. electric motors, and the capacity of each pump is 16,158 GPM / 36 CFS. The total pumping capacity of the station is 32,316 GPM / 72 CFS.

The two electric pumps are automatically set to alternately run as the lead (first) and lag 1 (second) pumps to equalize their operating hours. The pumps are programmed to turn on and off at the following water elevations (provided by the bubbler gage) in the basin:

Pump	On	Off
Lead	16.9	6.5
Lag 1	17.0	8.7

Trash Rack:

The D-07 Sunriver pump station is protected against debris by a set of double vertical trash racks.

The trash racks are located in the inlet basin to screen debris from storm water entering the station via the underground drainage pipe system. The trash racks are located under grated metal covers.

The trash racks are aligned vertically, and an electric overhead chain hoist is utilized to lift the trash racks out of the inlet basin whenever cleaning is required. A metal shelf attached to the bottom of each trash rack retains the debris that has been caught as the trash racks are lifted out of the inlet basin. One trash rack always remains in place during trash rack cleaning operations to assure that no debris is allowed to enter the wet well.

A high water level alarm at the trash rack inlet basin will warn if the trash racks are getting plugged up with debris and require cleaning. The trash racks should be inspected during wet weather to assure that they remain clear of debris.

Frequent inspection during wet weather, and remove trash and debris as needed.

Pump Discharge Flap Gates (2 located in discharge vault):

Inspect monthly and after each major storm to confirm that the flap gates are free swinging, and are not jammed open with debris.

Gravity Bypass Flap Gate (1 located in discharge vault):

Inspect monthly and after each major storm to confirm that the flap gate is free swinging, and is not jammed open with debris.

Access Control Rack (at American River):

Inspect frequently during wet weather, and remove trash and debris as needed.

Bubblers:

One bubbler tube is located on the west wall of the wet well, and pump operation is controlled by readings from this bubbler, which can be located in Appendix C "Sensor Location Map".

The possibility of debris clogging the bubblers is remote. The bubblers should have air blowing through the tubes at all times to ensure that they are kept free from debris. The bubbler system should be tested and cleaned every six months to ensure that the system is operating correctly and remains free of debris.

An alarm for high water level is located in the inlet basin, adjacent to the slide gate at the entrance to the wet well. The alarm should be tested and cleaned every six months to ensure that the system is operating correctly and remains free of debris.

Pump & Impeller Inspection:

Impellers should be inspected annually, before the rainy season, to verify that they are in proper working condition. Pump casings should be tapped with a ball peen hammer at numerous locations and all rusted areas, to assure the casing is still in good repair.

Lubrication:

There are several types of lubrication used at the pump station. Before lubricating any piece of equipment, verify that what is being used is compatible with manufacturer's recommendations.

Motors:

Each day the motors should be checked for excessive vibration and heat if the motors are currently running. If motors are not running during daily inspections, each motor should be

manually ran on a weekly basis to complete inspection. Oil levels should be checked on a daily basis.

Wetwell Cleaning:

The wet well should be inspected and cleaned annually.

General Cleaning:

A general inspection of the grounds should be conducted each day an operator is on site. Trash and debris shall be picked up and disposed, and weed control shall be maintained.

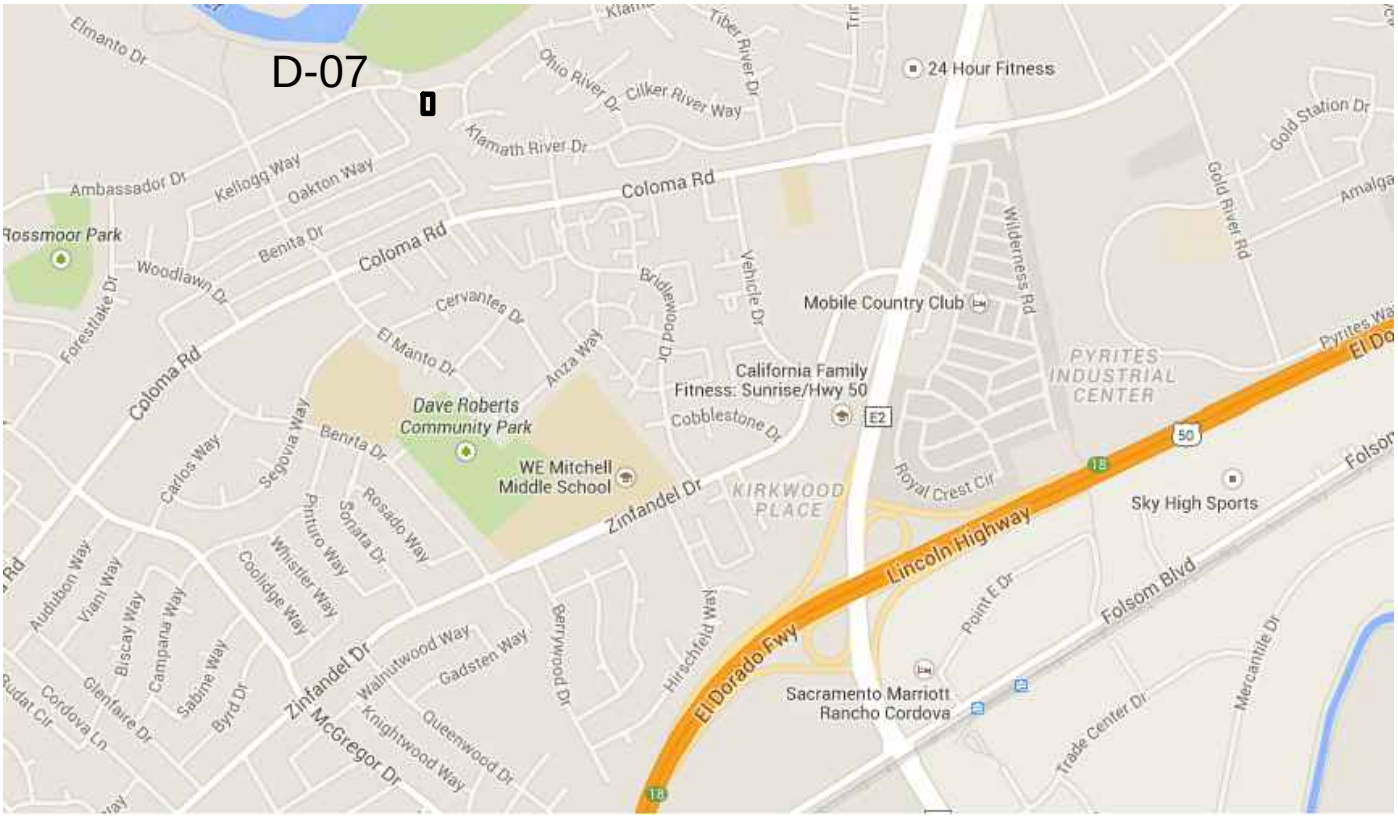
Alarm:

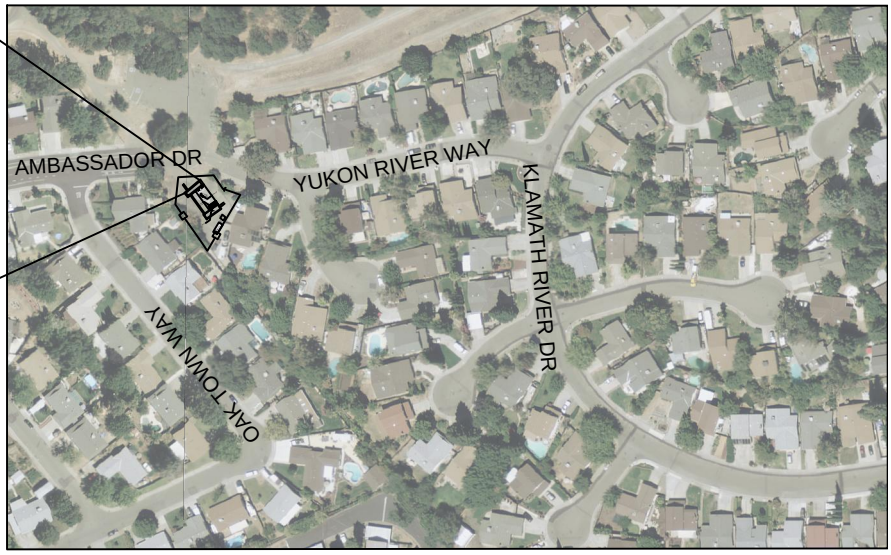
The facility has in place an auto dialer system that will notify Operators via telephone if the facility should encounter an alarm event. Appendix D "Alarm List" makes reference of the type of alarm, the priority, and if the alarm will "call out" to the Operator.

Appendix A

Vicinity Map

D-07 Sunriver Drainage Pump Station
Vicinity Map





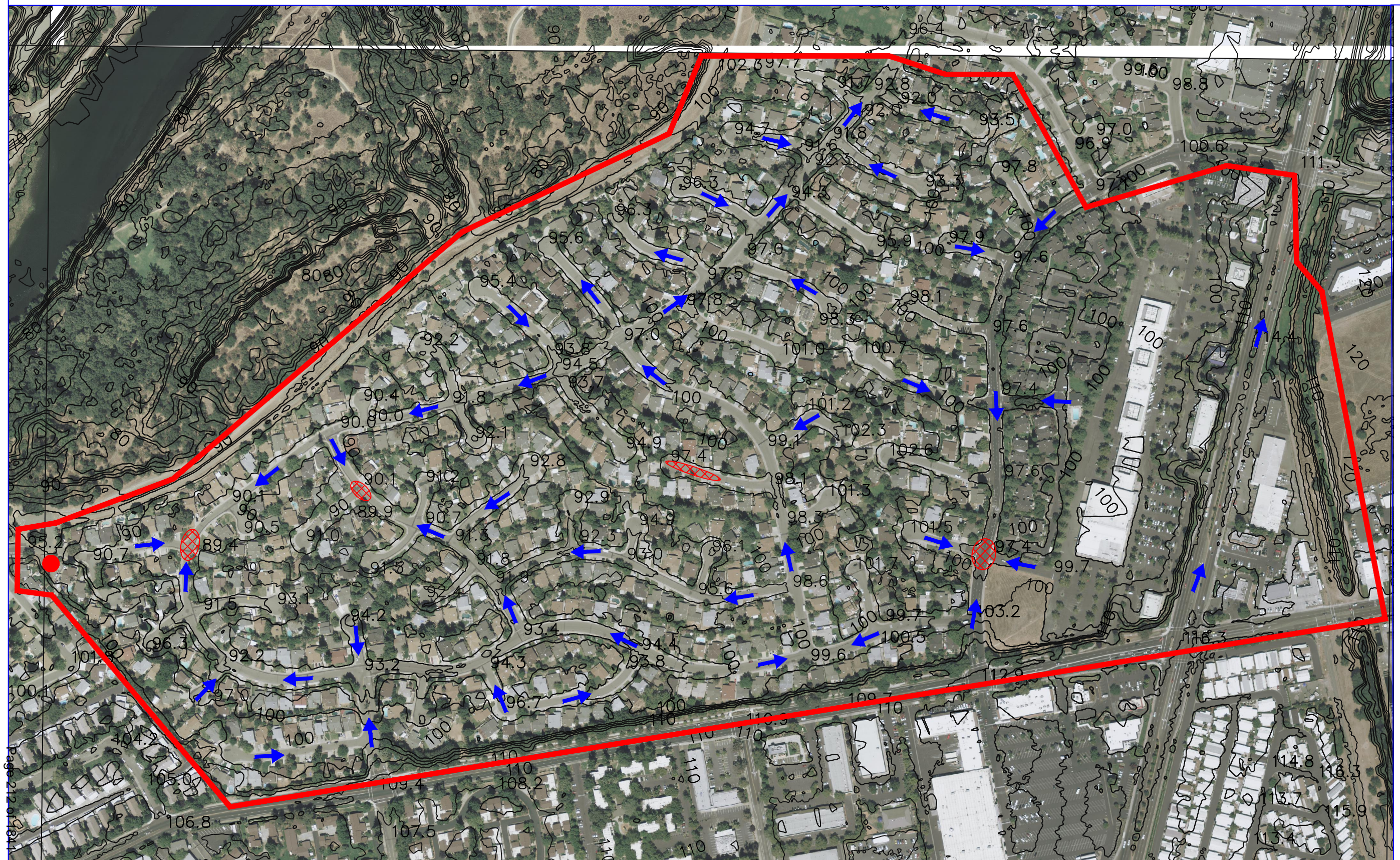
City of Rancho Cordova
Department of Public Works
Drainage Operations & Maintenance

Appendix B

Watershed Map

D-07 SUNRIVER

WATER SHED #12



CITY OF RANCHO CORDOVA
CALIFORNIA
Incorporated 2003

- PUMP LOCATION
- Flow
- AREAS OF CONCERN

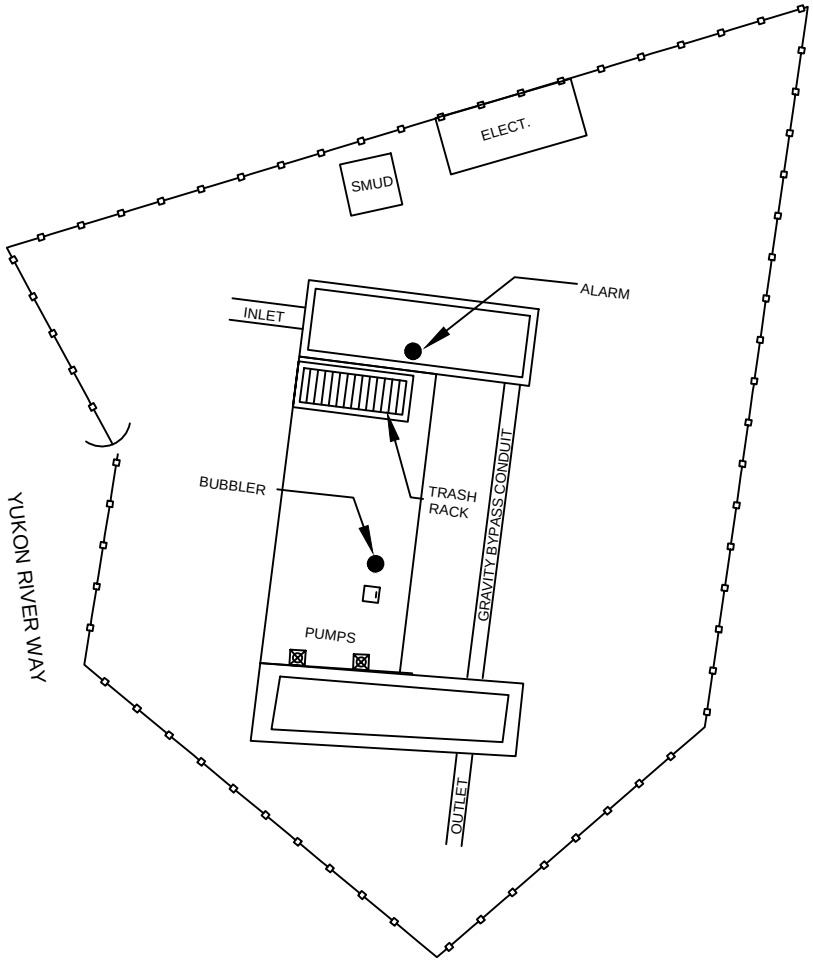
N

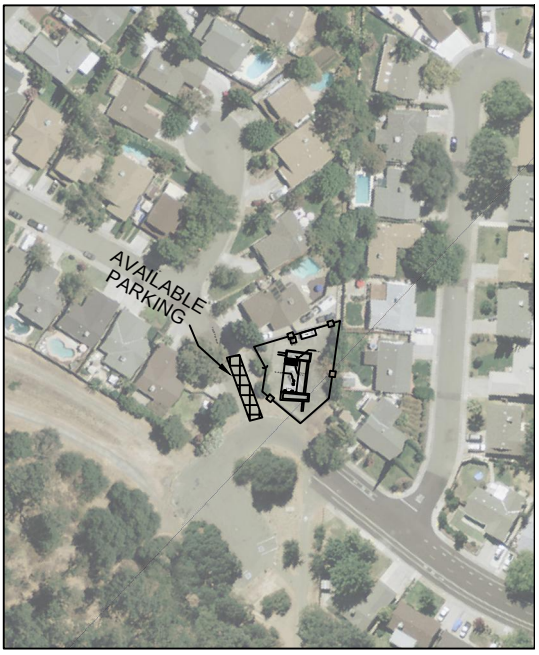
DRAINAGE SHED AREA:
175.3 AC
0.27 MI²

Appendix C

Sensor Location Map

D-07 SUNRIVER - SENSOR LOCATION MAP





City of Rancho Cordova
Department of Public Works
Drainage Operations & Maintenance

Appendix D

Alarm List

Alarm List		
Description	**Priority**	**Call Out**
Station Power Failure	Critical	Yes
Control Power Failure	Critical	Yes
Phase Voltage Failure	Critical	Yes
Battery Low	Low	No
Bubbler Pressure Low	Medium	Yes
Intrusion	Critical	Yes
Wetwell Level "Out-of-Range" (Level Invalid)	Medium	Yes
Wetwell Level – High (Physical)	Critical	Yes
Wetwell Level – High (Logical)	Critical	Yes
Pump No. 1 Not Ready Alarm	Critical	Yes
Pump No. 1 Fail-to-Start	Critical	Yes
Pump No. 2 Not Ready Alarm	Critical	Yes
Pump No. 2 Fail-to-Start	Critical	Yes

CITY OF RANCHO CORDOVA

Quick Reference Guide

STATION OPERATION

D-08

Citrus

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Appendix B Watershed Map

Appendix C Sensor Location Map

Appendix D Alarm List

Section 1 – Purpose of Guide

This guide is a summary of operations and maintenance procedures for the D-08 Citrus Road Pump Station, which can be identified in Appendix A "Vicinity Map".

Section 2 – Purpose of the D-08 Pump Station

The purpose of the D-08 Citrus Road pump station is to pump storm water from drainage Shed 49 into West Branch Buffalo Creek. During heavy storm events, drainage water will flow into the pump station inlet vault and wet wells from the surrounding area drainage systems. Storm water entering D-08 Citrus Road is then pumped directly into a 78" pipe which crosses underneath State Highway 50 and then discharges into West Branch Buffalo Creek. In Appendix B "WaterShed Map" is a map that shows the watershed that contributes runoff to this facility. The watershed is 34 acres, or 0.053 square miles.

Section 3 - Background

History:

The D-08 Citrus Road pump station is located at the north end of Citrus Road. It was originally constructed in 1983, and consists of 3 electric powered pumps, 1 inlet vault, 2 wet wells, and 1 discharge vault.

Design Summary:

The D-08 Citrus Road pump station was designed to handle a 100-year storm event, and will pump storm water as needed.

In 1997, the original 5 H.P. and 10 H.P. electric motors were replaced with new 10 H.P. and 20 H.P. electric motors.

Section 4 – Station Operational Parameters

Generator:

There is no back-up generator located at the D08 Citrus Road pump station.

In the event of a power failure, a temporary portable generator sized 20 kW would be sufficient to operate a single 10 H.P. pump, 40kW to operate one of the 20 H.P. pumps, or 100 kW to operate all three pumps. Currently there is a portable generator, which is located at the D-13 Mills Tower Pump Station that will operate the D-08 Citrus Road Pump

However, electrical connections are currently not available at the D-08 Citrus Road Pump Station. It is anticipated the City will modify the D-08 Citrus Road Pump Station to connect a portable generator in the near future.

Slide Gates:

One manual slide gate is located in the inlet vault, and it is used to isolate the pump station from the upstream drainage facilities during the sump annuals, or in case emergency access to the inlet vault, wet wells, or discharge vault is needed.

Inspect annually to ensure that the slide gate is able to open and close completely, and it should be checked by fully opening and closing the gate. Leave gate in open position after inspection.

Pump Discharge Flap Gates (3 located in discharge vault):

Inspect monthly and after each major storm to confirm that the flap gates are free swinging, and are not jammed open with debris.

Pumps:

There are three pumps installed at the pump station. Pump 1 has a 10 H.P. electric motor, and the capacity of the pump is 1,571 GPM / 3.5 CFS. Pump 2 and Pump 3 each have 20 H.P. electric motors, and the capacity of each pump is 3,142 GPM/ 7 CFS. The total pumping capacity of the station is 7,855 GPM / 17.5 CFS

The three electric pumps are automatically set to alternately run as the lead (first), lag (second), and lag 2 (third) pumps to equalize their operating hours. The pumps are programmed to run on and off at the following water elevations (based on the bubbler gage) in the wet well:

Pump	On	Off
Lead	8.5	6.5
Lag 1	9.3	7.0
Lag 2	10.0	7.5

Trash Rack:

The D-08 Citrus Road pump station is protected against debris by a single vertical trash rack.

The trash rack is located in the inlet vault to screen debris from storm water entering the station via the underground drainage pipe system. The trash rack is located under grated metal covers.

The trash rack is aligned vertically, and an overhead chain hoist is utilized to lift the trash racks out of the inlet basin whenever cleaning is required. A metal shelf attached to the bottom of the trash rack retains the debris that has been caught as the trash rack is lifted out of the inlet basin.

There is no high water level alarm at the trash rack inlet vault to warn if the trash rack is getting plugged up with debris. The trash rack should be inspected during wet weather to assure that it remains clear of debris.

Bubblers:

One bubbler tube is located on the west side of the west wet well, and pump operations are controlled by readings from this bubbler, which can be located in Appendix C "Sensor Location Map".

The possibility of debris clogging the bubblers is remote. The bubblers should have air blowing through the tubes at all times to ensure that they are kept free from debris. The bubbler system should be tested and cleaned every every six months to ensure that the system is operating correctly and remains free of debris.

An alarm for high water level is located adjacent to the bubbler in the west wet well. The alarm should be tested and cleaned every six months to ensure that the system is operating correctly and remains free of debris.

Pump & Impeller Inspection:

Impellers should be inspected annually, before the rainy season, to verify that they are in proper working condition. Pump casings should be tapped with a ball peen hammer at numerous locations and all rusted areas, to assure the casing is still in good repair.

Lubrication:

There are several types of lubrication used at the pump station. Before lubricating any piece of equipment, verify that what is being used is compatible with manufacturer's recommendations.

Motors:

The motors should be checked each day for excessive vibration and heat when running. If motors are not running during daily inspections, each motor should be manually ran on a weekly basis to complete inspection. Oil levels should be checked on a daily basis.

Wet well Cleaning:

Inspection of the Wet well should be conducted each day and cleaned as required. A thorough cleaning shall be conducted on an annual basis.

General Cleaning:

Each day an Operator is on site a general inspection of the grounds should be conducted. Trash and debris shall be picked up and disposed, weed control measures maintained.

Alarm:

The facility has in place an auto dialer system that will notify Operators via telephone if the facility should encounter an alarm event. Appendix D "Alarm List" makes reference of the type of alarm, the priority, and if the alarm will "call out" to the Operator.

Appendix A

Vicinity Map

D-08 Citrus Road Drainage Pump Station
Vicinity Map

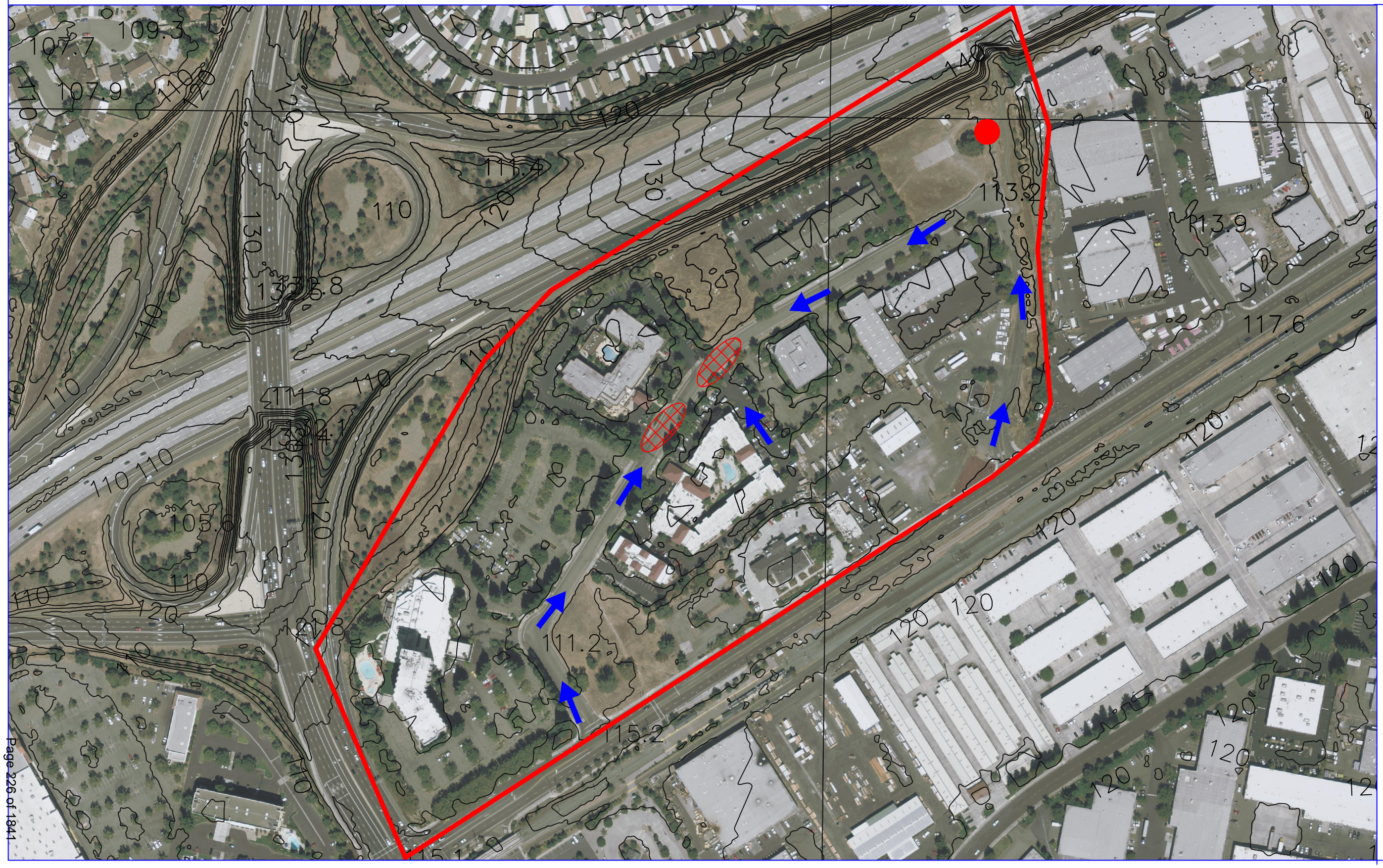
City of Rancho Cordova
Department of Public Works
Drainage Operations & Maintenance

Appendix B

Watershed Map

D-08 CITRUS ROAD

WATER SHED #49



CITY OF RANCHO CORDOVA
CALIFORNIA
Incorporated 2003

- PUMP LOCATION
- Flow
- AREAS OF CONCERN

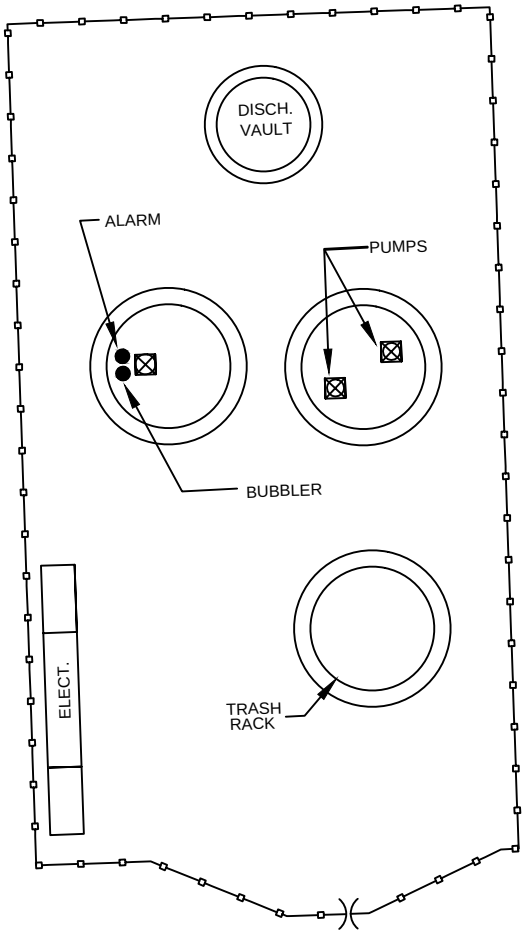
N

DRAINAGE SHED AREA:
34.8 AC
0.053 MI²

Appendix C

Sensor Location Map

D-08 CITRUS ROAD - SENSOR LOCATION MAP



City of Rancho Cordova
Department of Public Works
Drainage Operations & Maintenance

Appendix D

Alarm List

Alarm List		
Description	**Priority**	**Call Out**
Station Power Failure Alarm	Critical	Yes
Control Power Failure Alarm	Critical	Yes
Phase Voltage Failure Alarm	Critical	Yes
Battery Low Alarm	Low	No
Bubbler Pressure Low Alarm	Medium	Yes
Intrusion Alarm	High	Yes
Wetwell level Out of Range Alarm	Medium	Yes
Wetwell Level High Alarm (Physical)	Medium	Yes
Wetwell Level High Alarm (Logical)	Critical	Yes
Wetwell Level Low Alarm (Logical)	Medium	Yes
Pump No. 1 Not Ready Alarm	Critical	Yes
Pump No. 1 Fail To Start Alarm	Critical	Yes
Pump No. 2 Not Ready Alarm	Critical	Yes
Pump No. 2 Fail To Start Alarm	Critical	Yes
Pump No. 3 Not Ready Alarm	Critical	Yes
Pump No. 3 Fail To Start Alarm	Critical	Yes

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Quick Reference Guide

STATION OPERATION

D-11

West Coloma

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Appendix A Vicinity Map
Appendix B Watershed Map
Appendix C Sensor Location Map
Appendix D Alarm List

Section 1 – Purpose of Guide

This guide is a summary of operations and maintenance procedures for the D-11 West Coloma Pump Station, which can be identified in Appendix A "Vicinity Map".

Section 2 – Purpose of the D-11 Pump Station

The purpose of the D-11 West Coloma Pump Station is to pump storm water from drainage Shed 17 into the American River. During heavy storm events, drainage water will flow into the pump station wet well from the surrounding area drainage systems. Storm water entering D-11 West Coloma is then pumped directly into the American River. In Appendix B "Water Shed Map", is a map that shows the water shed that contributes runoff to this facility. The water shed is 221 acres, or 0.35 square miles.

Section 3 - Background

History:

The D-11 West Coloma Pump Station is located in the City of Rancho Cordova, and is operated and maintained by The City of Rancho Cordova. The D-11 West Coloma Pump Station is located on the east side of Rod Beaudry Drive, just south of the River Bend Park entrance booth. It was originally constructed in 1960, and consists of 2 electric powered pumps, 1 inlet basin, 1 trash rack, 1 wet well, 1 discharge vault, and a single 48" gravity bypass conduit.

Design Summary:

The D-11 West Coloma Pump Station was designed to handle a 100-year storm event, and will pump storm water as needed.

When the D-11 West Coloma Pump Station was originally constructed, a single electric powered pump was installed, and in 1964 a second electric pump was installed.

Section 4 – Station Operational Parameters

Generator:

There is no back-up generator located at the D-11 West Coloma Pump Station.

In the event of a power failure, a temporary portable generator sized 100 kW would be sufficient to operate a single 50 H.P. pump, or 200 kW generator to operate both pumps. Currently there is a portable generator, which is located at the D-13 Mills Tower Pump Station that will operate the D-11 West Coloma Pump Station. However, electrical connections are currently not available at the D-11 West Coloma Pump Station. It is anticipated the City will modify the D-11 West Coloma Pump Station to connect a portable generator in the near future.

Slide Gates:

A slide gate for the gravity bypass conduit is located on the levee on the west side of Rod Beaudry Drive. The gravity bypass slide gate is typically left in the open position to allow drainage water to flow directly into the American River, which minimizes pumps usage. The gravity bypass gate is closed when the flow rate on the American River reaches State 3 (releases of 50,000 CFS or higher from Nimbus Dam).

Another manual slide gate located inside the pump station fence (south of the pumps) is a drainage system to the south, where no pumping is required.

Inspect slide gate annually to ensure that the slide gate is able to open and close completely, and it should be checked by fully opening and closing the gate. Leave the gate in the open position after inspection.

Pumps:

There are two pumps installed at the D-11West Coloma Pump Station.

The pumps each have 60 H.P. electric motors, and the pumping capacity of each pump is 11,220 GPM / 25 CFS. The maximum pumping capacity of the pump station is 22,440 GPM / 50 CFS.

The D-11 West Coloma Pumps Station has a 48" gravity bypass conduit, which minimizes use of the pumps when the American River water level is low.

The two pumps are automatically set to alternately run as the first and second pumps to equalize their operating hours. The pumps are programmed to turn on and off at the following water elevations (based on the bubble gage) in the wet well:

Pump	On	Off
Lead	6.0	2.0
Lag 1	6.5	4.0

Trash Rack:

The D-11 West Coloma Pump Station is protected against debris by one trash rack located in the inlet basin to screen debris from storm water entering the station. The trash rack should be inspected frequently during wet weather to assure that the trash and debris are removed in a timely fashion. The trash rack must be cleaned manually using rakes.

A high water level alarm at the trash rack inlet basin will warn if the trash racks are getting plugged up with debris and require cleaning. The trash racks should be inspected during wet weather to assure that they remain clear of debris

Bubblers:

One bubbler tube is located located on the east wall of the wet well, and pump operations are controlled by readings from this bubbler, which can be located on Appendix C "Sensor Location Map".

The possibility of debris clogging the bubblers is remote. The bubblers should have air blowing through the tubes at all times to ensure that they are kept free of debris. The bubbler system should be tested and cleaned every six months to ensure that the system is operating correctly and remains free of debris.

An alarm for high water level is located on the east wall of the inlet basin, adjacent to the trash rack. The alarm should be tested and cleaned every six months to ensure that the system is operating correctly and remains free of debris.

Pump & Impeller Inspection:

Impellers should be inspected annually, before the rainy season, to verify that they are in proper working condition. Pump casings should be tapped with a ball peen hammer at numerous locations and all rusted areas, to assure the casing is still in good repair.

Pump Discharge Flap Gates:

There are 2 pump discharge flap gates located in the discharge vault. Inspections should be completed monthly and after each major storm event to confirm that the flap gates are free swinging, and are not jammed open with debris.

Gravity Bypass Flap Gate:

The gravity bypass flap gate is located in the discharge vault. Inspections should be completed monthly and after each major storm to confirm that the flap gate is free swinging, and not jammed open with debris. The bypass outfall drains the pump station from the inlet basin. A fourth flap gate is located in the discharge vault and should also be checked (a separate drainage system that is not connected to D-11).

Outfall Flap Gate:

The outfall flap gate is located on the American River. Inspection should be completed monthly and after each major storm to confirm that the flap gate is free swinging, and not jammed open with debris.

Discharge Vault:

Inspection of the discharge vault should be inspected annually and cleaned as needed.

Lubrication:

There are several types of lubrication used at the pump station. Before lubricating any piece of equipment, verify that what is being used is compatible with manufacturer's recommendations.

Motors:

Each day the motors should be checked for excessive vibration and heat if the motors are currently running. If motors are not running during daily inspections, each motor should be manually ran on a weekly basis to complete inspection. Oil levels should be checked on a daily basis.

Wet Well Cleaning:

Inspection of the wet well should be conducted each day and cleaned as required. A thorough cleaning shall be conducted on an annual basis.

General Cleaning:

Each day an Operator is on site a general inspection of the grounds should be conducted. Trash and debris shall be picked up and disposed, and weed control shall be maintained.

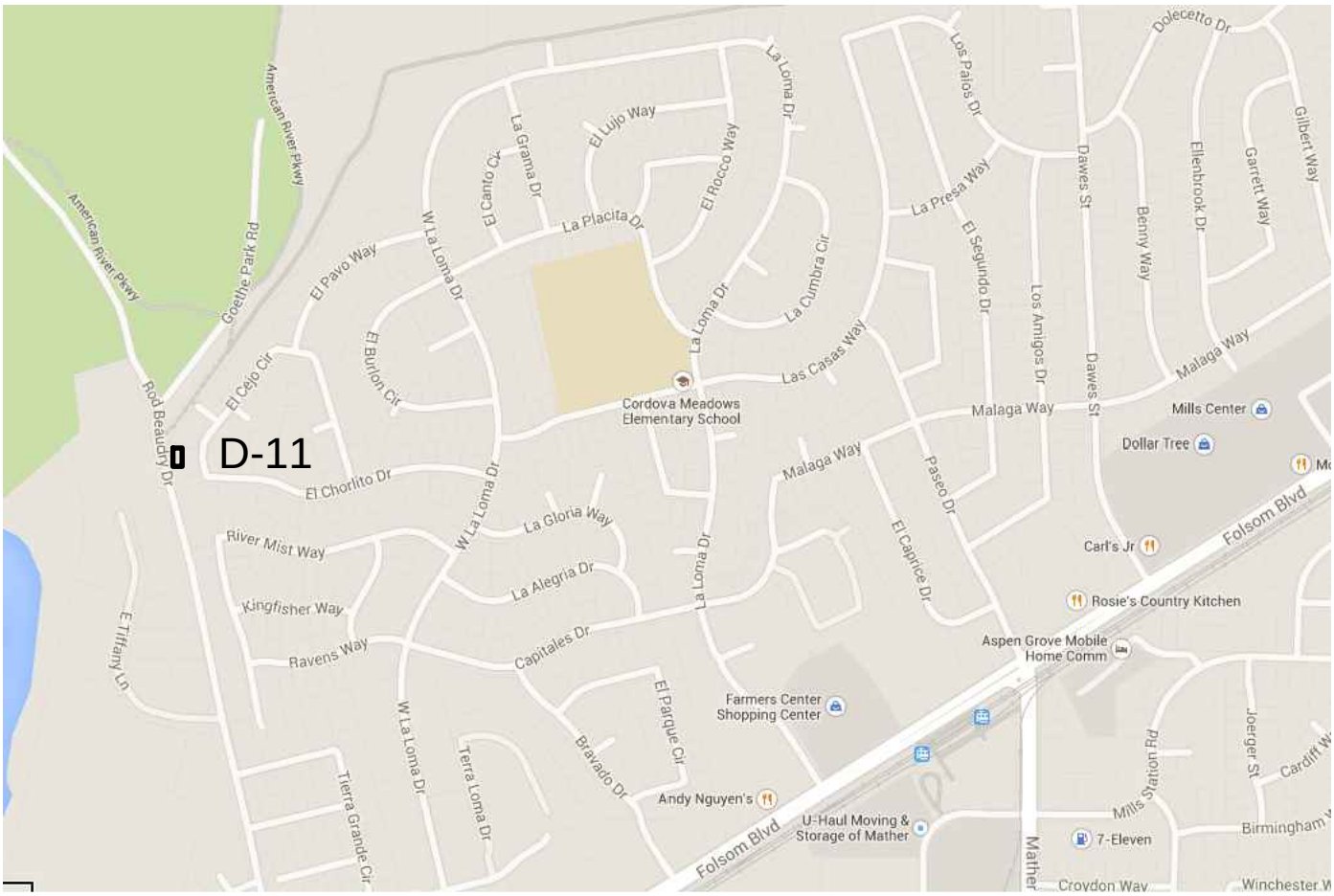
Alarm:

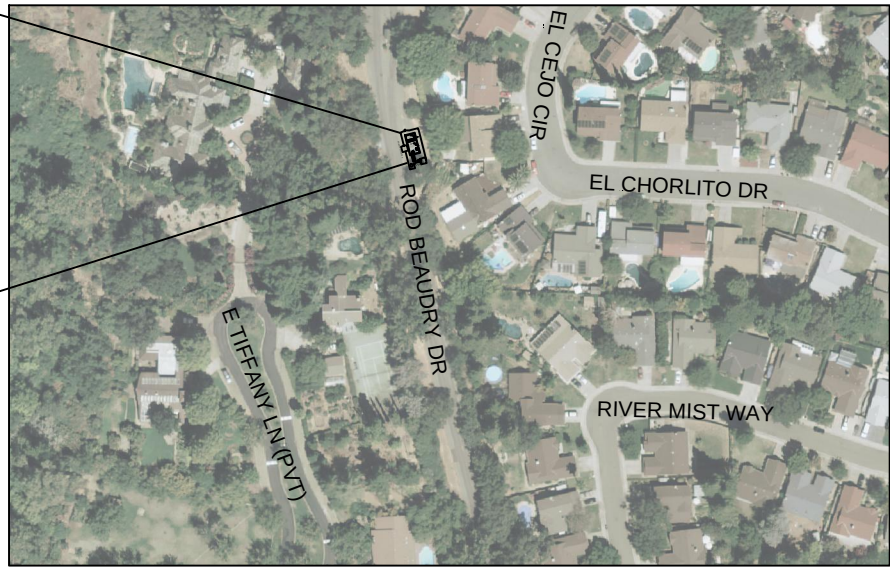
The facility has an auto dialer system in place that will notify Operators via telephone if the facility should encounter an alarm event. Appendix D "Alarm List" makes reference of the type of alarm, the priority, and if the alarm will "call out" to the Operator.

Appendix A

Location Map

D-11 West Coloma Drainage Pump Station
Vicinity Map





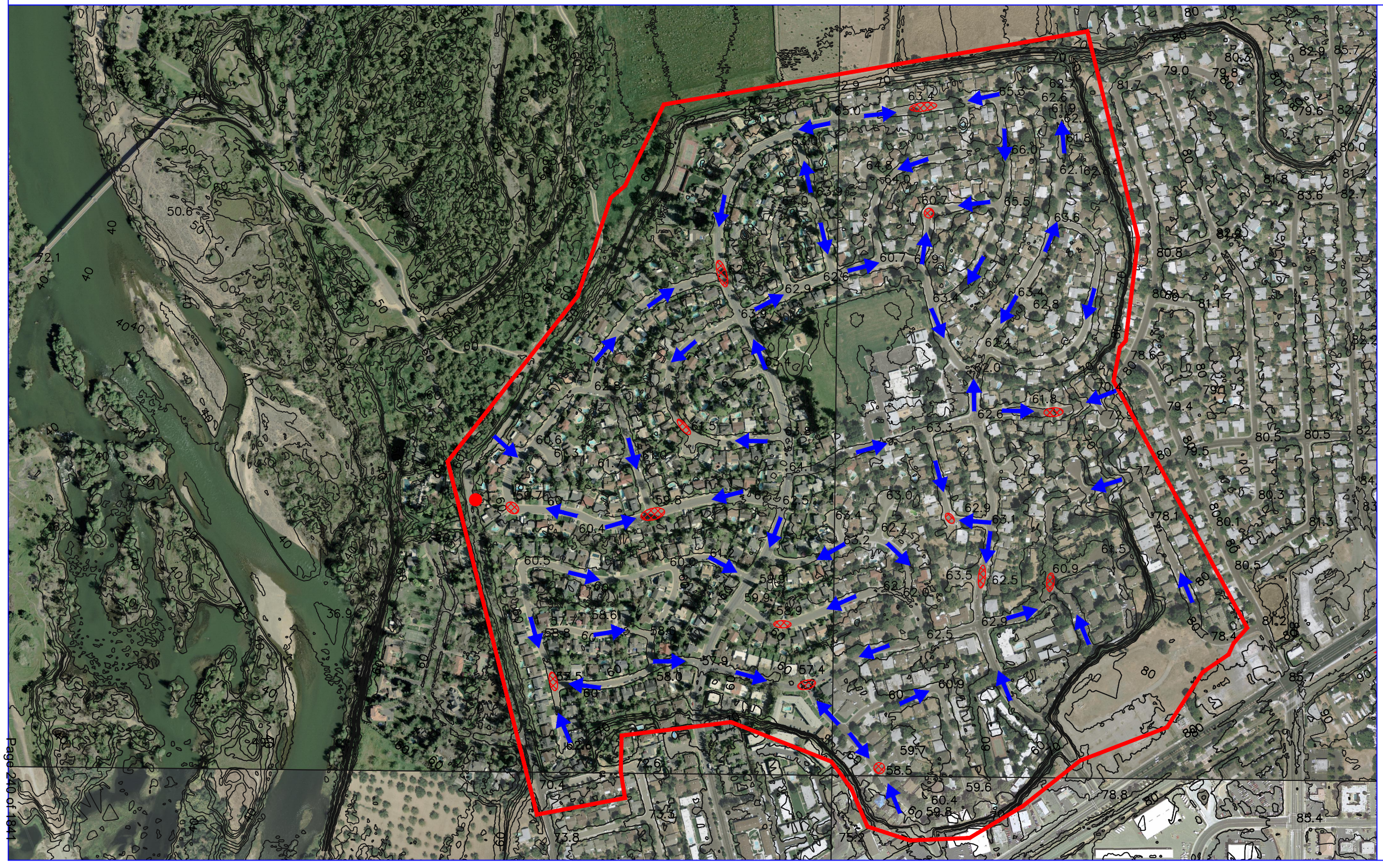
City of Rancho Cordova
Department of Public Works
Drainage Operations & Maintenance

Appendix B

Watershed map

D-11 WEST COLOMA

WATER SHED #17



CITY OF RANCHO CORDOVA
CALIFORNIA
Incorporated 2003

- PUMP LOCATION
- Flow
- AREAS OF CONCERN

N

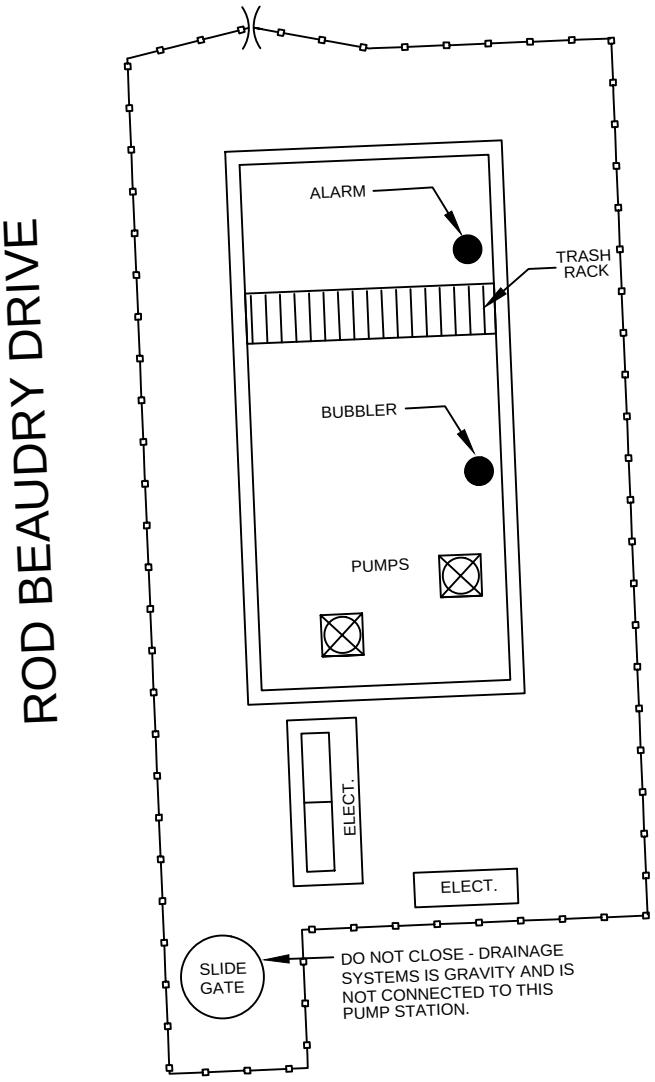
DRAINAGE SHED AREA:
221 AC
0.345 MI²

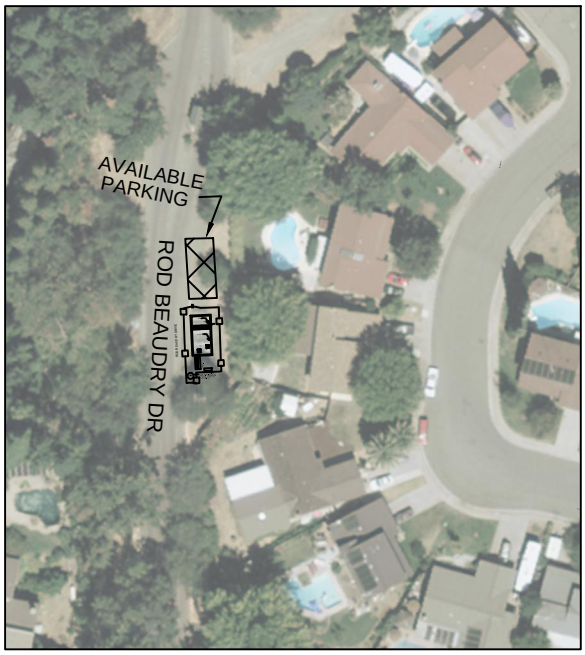
ATTACHMENT 2
Contract No. 2022-245

Appendix C

Sensor Location Map

D-11 WEST COLOMA - SENSOR LOCATION MAP





City of Rancho Cordova
Department of Public Works
Drainage Operations & Maintenance

Appendix D

Alarm List

Alarm List		
Description	**Priority**	**Call Out**
Station Power Failure Alarm	Critical	Yes
Control Power Failure Alarm	Critical	Yes
Phase Voltage Failure Alarm	Critical	Yes
Battery Low Alarm	Low	No
Bubbler Pressure Low Alarm	Medium	Yes
Intrusion Alarm	High	Yes
Wet well level Out of Range Alarm	Medium	Yes
Wet well Level High Alarm (Physical)	Medium	Yes
Wet well Level High Alarm (Logical)	Critical	Yes
Wet well Level Low Alarm (Logical)	Medium	Yes
Pump No. 1 Not Ready Alarm	Critical	Yes
Pump No. 1 Fail To Start Alarm	Critical	Yes
Pump No. 2 Not Ready Alarm	Critical	Yes
Pump No. 2 Fail To Start Alarm	Critical	Yes

CITY OF RANCHO CORDOVA

Quick Reference Guide

STATION OPERATION

D-13

Mills Tower

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Appendix D Alarm List

Section 1 – Purpose of Guide

This guide is a summary of operations and maintenance procedures for the D-13 Mills Tower Pump Station, which can be identified in Appendix A "Vicinity Map".

Section 2 – Purpose of the D-13 Pump Station

The purpose of the D-13 Mills Tower pump station is to pump storm water from drainage Shed 17 into the American River. During heavy storm events, drainage water will flow into the pump station wet well from the surrounding area drainage systems. Storm water entering D-13 Mills Tower is then pumped directly into a 48" pipeline that travels approximately 0.5 miles north along Coloma Road, which then discharges into the Cordova Creek leading to the American River. In Appendix B "Watershed Map" is a map that shows the watershed that contributes runoff to this facility. The watershed is 139.8 acres, or 0.22 square miles.

Section 3 - Background

History:

The D-13 Mills Tower pump station is located in the City of Rancho Cordova, between 10417 and 10421 Mills Tower Drive. It was originally constructed in 1960, and consists of 2 electric powered pumps, 1 wet well, and 1 discharge vault.

Design Summary:

The D-13 Mills Tower pump station was designed to handle a 100-year storm event, and will pump storm water as needed.

Section 4 – Station Operational Parameters

Generator:

There is a back-up generator located at the D-13 Mills Tower Pump Station.

Electrical connections are available for the D-13 Mill Tower Pumps Station. A detailed step-by-step instruction guide is located within the D-13 Mills Tower Pump Station control building to assist the operator with making the electrical connections for the D-13 Mills Tower Pump Station to operate using power generated by the generator.

Slide Gates:

One manual slide gate is located in the inlet basin, and it is used to isolate the pump station from the upstream drainage facilities during the sump annuals, or in case emergency access to the inlet basin or wet well is needed.

Inspect annually to ensure that the slide gate is able to open and close completely. The slide gate should be checked by fully opening and closing the gate. Leave the gate in open position after inspection.

Pump Discharge Flap Gates:

There are 2 pump discharge flap gates, which are located in the discharge vault. Inspection is required monthly and after a major storm to confirm that the flap gates are free swinging, and are not jammed open with debris.

Pumps:

There are two pumps installed at the D-13 Mills Tower pump station. Pumps 1 and 2 each have a 50 H.P. electric motor, and the capacity of each pump is 10,100 GPM / 22.5 CFS.

The total pumping capacity of the station is 20,200 GPM / 45.0 CFS.

The two electric pumps are automatically set to alternately run as the lead (first) and lag (second pumps to equalize their operating hours. The pumps are programmed to turn on and off at the following water elevations (based on the bubbler gate in the wet well):

Pump	On	Off
Lead	6.0	2.7
Lag 1	7.2	4.5

Trash Rack:

The D-13 Mills Tower pump station is protected against debris by a single inclined trash rack.

The trash rack is located in the inlet basin to screen debris from storm water entering the station via the underground drainage pipe system.

A high water level alarm at the trash rack inlet basin will warn if the trash racks are getting plugged up with debris and require cleaning. The trash racks should be inspected during wet weather to assure that they remain clear of debris.

Bubblers:

One bubbler tube is located in the northeast corner of the wet well, and pump operation is controlled by readings from this bubbler, which can be identified on Appendix C "Sensor Location Map".

The possibility of debris clogging the bubblers is remote. The bubblers should have air blowing through the tubes at all times to ensure that they are kept free of debris.

An alarm for high water level is located in the southeast corner of the inlet basin, just upstream of the trash rack. The alarm should be tested and cleaned every six months to ensure that the system is operating correctly and remains free of debris.

Pump & Impeller Inspection:

Impellers should be inspected annually, before the rainy season, to verify that they are in proper working condition. Pump casings should be tapped with a ball peen hammer at numerous locations and all rusted areas, to assure the casing is still in good repair.

Lubrication:

There are several types of lubrication used at the pump station. Before lubricating any piece of equipment, verify that what is being used is compatible with manufacturer's recommendations.

Motors:

Each day the motors should be checked for excessive vibration and heat if the motors are currently running. If motors are not running during daily inspections, each motor should be manually ran on a weekly basis to complete inspection. Oil levels should be checked each day an operator is on site, but weekly as a minimum.

Wet well Cleaning:

Inspection of the Wet well should be inspected each day an operator is on site, but shall be check weekly as a minimum. and cleaned as required. A thorough cleaning shall be conducted on an annual basis.

General Cleaning:

Each day an Operator is on site a general inspection of the grounds should be conducted. Trash and debris shall be picked up and disposed, weed control measures maintained.

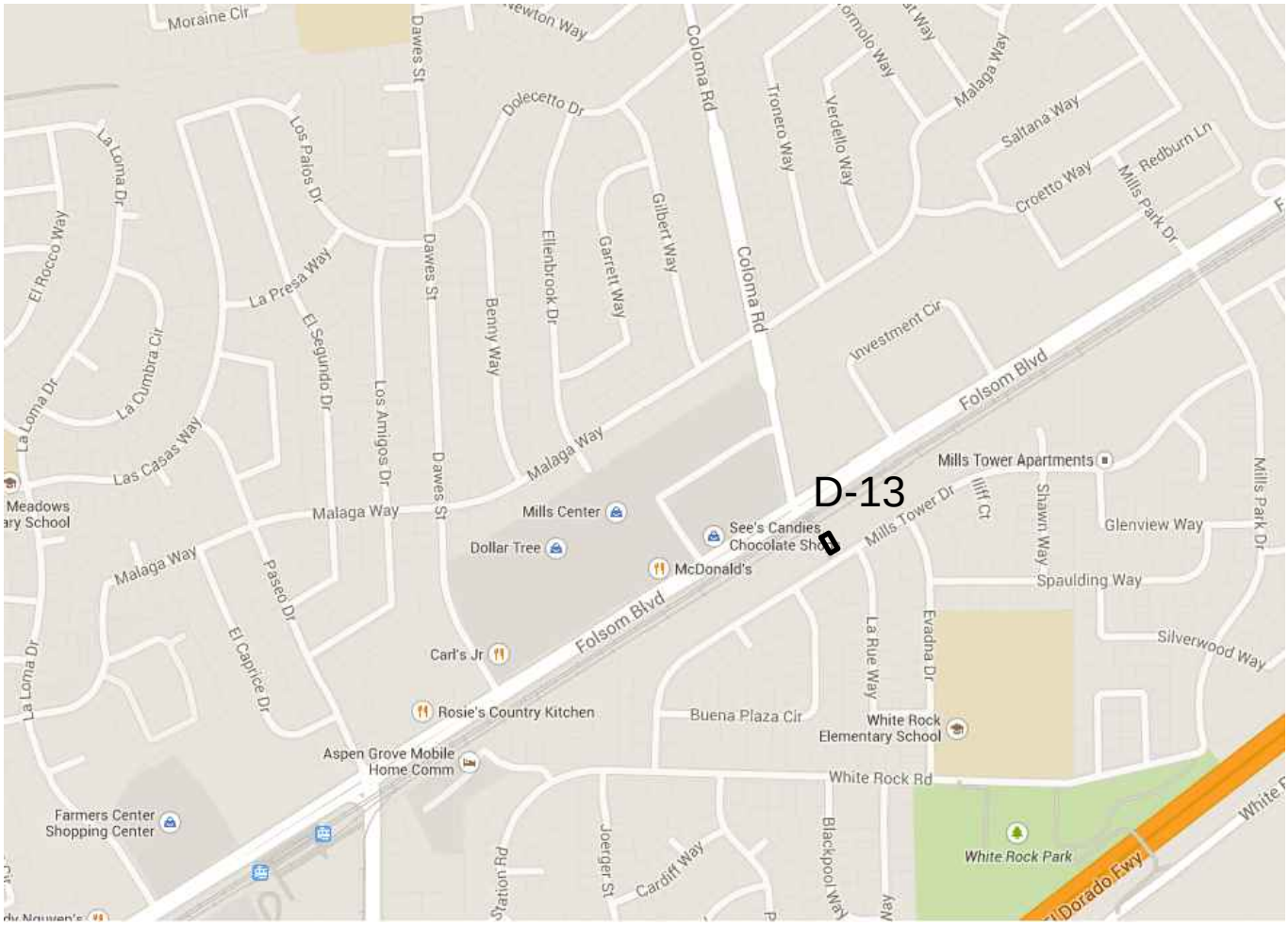
Alarm:

The facility has an auto dialer system in place that will notify Operators via telephone if the facility should encounter an alarm event. Appendix D "Alarm List" makes reference of the type of alarm, the priority, and if the alarm will "call out" to the Operator.

Appendix A

Vicinity Map

D-13 Mills Tower Drainage Pump Station
Vicinity Map



City of Rancho Cordova
Department of Public Works
Drainage Operations & Maintenance

Appendix B

Watershed Map

D-13 MILLS TOWER

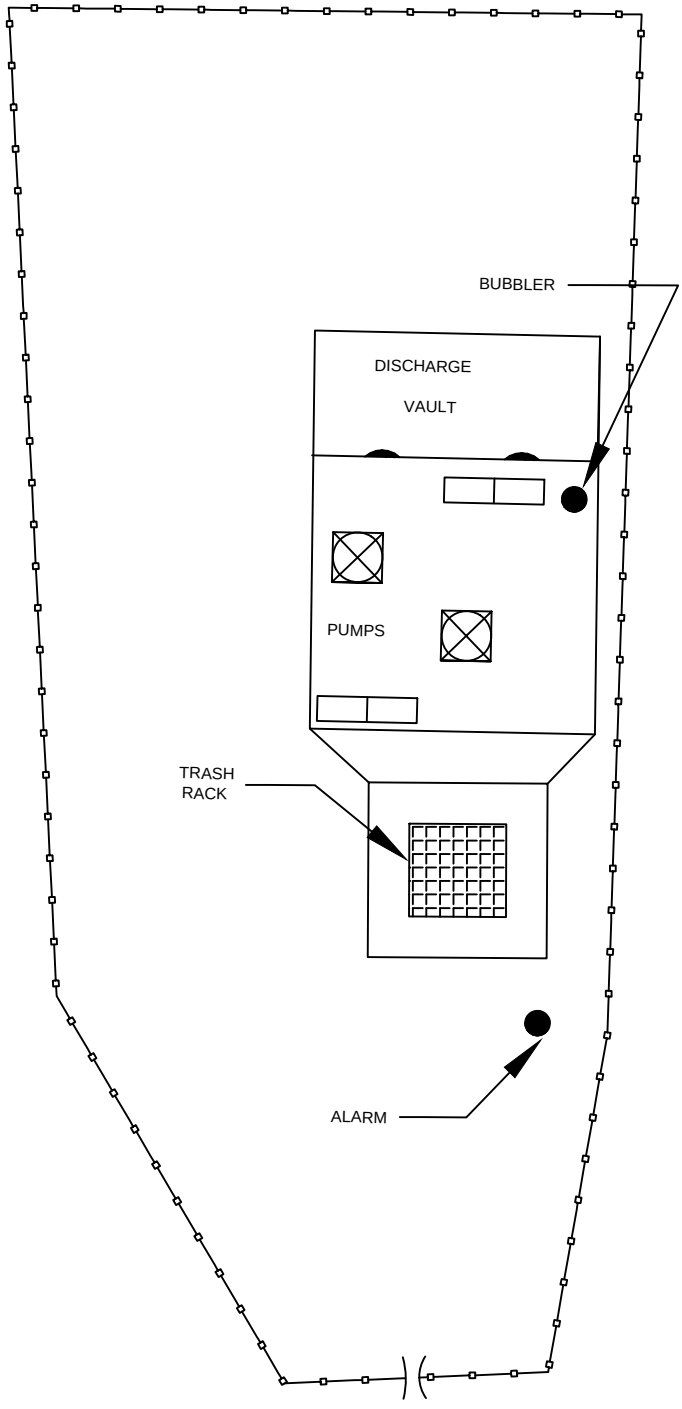
WATER SHED #17

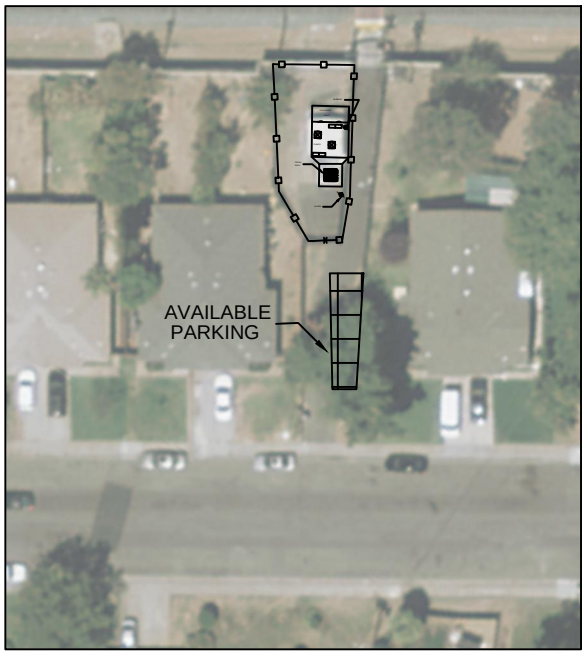
CITY OF RANCHO CORDOVA
CALIFORNIA
Incorporated 2003

Appendix C

Sensor Location Map

D-13 MILLS TOWER - SENSOR LOCATION MAP





City of Rancho Cordova
Department of Public Works
Drainage Operations & Maintenance

Appendix D

Alarm List

Alarm List		
Description	**Priority**	**Call Out**
Station Power Failure Alarm	Critical	Yes
Control Power Failure Alarm	Critical	Yes
Phase Voltage Failure Alarm	Critical	Yes
Battery Low Alarm	Low	No
Bubbler Pressure Low Alarm	Medium	Yes
Intrusion Alarm	High	Yes
Wetwell level Out of Range Alarm	Medium	Yes
Wetwell Level High Alarm (Physical)	Medium	Yes
Wetwell Level High Alarm (Logical)	Critical	Yes
Wetwell Level Low Alarm (Logical)	Medium	Yes
Pump No. 1 Not Ready Alarm	Critical	Yes
Pump No. 1 Fail To Start Alarm	Critical	Yes
Pump No. 2 Not Ready Alarm	Critical	Yes
Pump No. 2 Fail To Start Alarm	Critical	Yes

CITY OF RANCHO CORDOVA

Quick Reference Guide

STATION OPERATION

D-44

Bear Hollow

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Section 1 – Purpose of Guide

This guide is a summary of operations and maintenance procedures for the D-44 Bear Hollow Drainage Pump Station, which can be identified in Appendix A "Vicinity Map".

Section 2 – Purpose of the D-44 Pump Station

The purpose of the D-44 pump station is to pump storm water from a portion of drainage shed 13 to Morrison Creek. During storm events, water flows into the detention basin from the surrounding area drainage systems and is pumped up to Morrison Creek. In Appendix B "WaterShed Map 13" is a map that shows the watershed that contributes runoffs to this detention basin. The watershed is 687 acres, or 1.11 square miles.

Section 3 - Background

History:

The D-44 pumps station is located south of the intersection of Bear Hollow Drive and North Mather Drive, and was constructed in 2004 with the Villages of Zinfandel subdivision. Previously, the land in the subdivision was used for aggregate mining by Lonestar Aggregates. The D-44 pump station is located at the west end of the former settling basin of the aggregate mine. The pump station consists of four large pumps, one low-flow pump, an inlet basin, one automated trash rack, one wet well, and a diesel back-up generator.

Design Summary:

The D-44 Bear Hollow pump station and detention basin is designed to handle a 100 year event, and will pump storm water as needed.

Section 4 – Station Operational Parameters

Diesel Engine and Generator:

The diesel engine and generator will automatically start and run if needed in the event of a power outage. The generator has been configured and sized to run the pumps, sluice gate, bubbler, and PLC in the event of a power outage for up to 24 hours.

The generator is programmed to start during a power failure under any of the 3 following conditions:

- Pumping is needed.
- Battery power level is low.
- Bubbler air pressure is low.

Once started, the generator will continue to operate until SMUD power is restored, and then it will automatically shut off.

The diesel engine and generator system should be inspected and operated weekly to assure reliability. Furthermore, the City was issued a Permit to Operate (permit #24562), by Sacramento Metropolitan Air Quality Management District (SMAQMD) on May 1, 2015, which details specific conditions with the operation and maintenance of the generator. Conditions for this permit are strictly enforced by SMAQMD, and a copy of the permit with conditions is attached in Appendix C.

Sluice Gate (72" x 72"):

There is one motor-operated sluice gate that controls the amount of water that is allowed into the wet well from the inlet basin. The sluice gate is normally in the open position. The gate is there so that it can be closed to allow maintenance to be conducted in the wet well and on the pumps.

Pumps:

The pump station consist of four mixed-flow/vertical propeller pumps and one low-flow submersible pump. Mixed-flow pumps are in-line pumps that are used in applications that require high volume flow with a low discharge pressure.

The low-flow submersible pump has a 30 H.P. electric motor driving a pump with a capacity of 7.5 CFS. The low-flow pump is designed to pump the summer run off, and dewatering the wet well for service. The low-flow pump will shut off when the large pumps are called to operate.

Each of the large pumps has a 75 H.P. electric motor driving a pump with a capacity of 15 CFS, for a station capacity of 45 CFS capacity. One 15 CFS pump serves as backup.

The four large electrical pumps are set to run alternately as pumps 1, 2, and 3 to equalize their operating hours: with one pump always held as backup.

The pumps are scheduled to turn on and off based on the following water elevation (provided by the bubbler gage) in the basin:

Pump	On	Off
Lead	73.0	70.0
Lag 1	75.0	72.0

Lag 2	77.0	74.0
Lag 3	Backup	--
Low-Flow	67.0 (Apr 1 – Sept 30)	65.5
Low-Flow	70.0 (Oct 1 – Apr 1)	65.5

All pumping at the station will cease if the water surface elevation at the outfall in Morrison Creek reaches 91.5 feet. Pumping will resume when the elevation at these culverts goes down to 90.0 feet.

Trash Rack:

The D-44 Bear Hollow pump station is protected against debris by one automated trash rack located in the inlet basin to screen debris from storm water entering the station. There is an alarm for high water level in the inlet basin in the event the trash racks become plugged.

The trash rack is automatically cleaned with a Duperon mechanized raking system, which deposits debris directly into on dumpster permanently staged at the rear of the trash rack.

The trash rack should be inspected during wet weather to assure that it remains clear of debris, and to confirm that the automated raking system is operating properly.

Trash rack operations are based upon water head differential across the rake, and is determined with sensors LT051 and LT052 (see sheet E12 of the approved plans or the Sensor Location Map section of this report). The on/off settings are as follows:

- Head differential ≥ 6" = Rake On.
  Head differential < 3" = Rake Off.
- Rake is also set to run every 12 hours of 10 minutes to keep grate clear.

Automated Electric Operator and Slide Gate:

The automated electric operator (actuator) should be tested every 6 months to ensure that the actuator is ready to operate. In addition, the bolts between the actuator and the gear box should be checked and re-tightened every year a required. Seals and O-rings need to be checked regularly and replaced as necessary. The gear housing is filled with lubricant at the factory. The manufacturer recommend that the grease should be changed every 6-8 years.

The slide gate requires inspection to ensure that it is able to close completely and should be checked, by opening and closing the gate, at the same time the actuator is inspected.

Basin Cleaning and Maintenance:

The basin is listed on the yearly maintenance schedule for mowing in the spring, and sprayed in the spring, summer, fall, and winter.

Bubblers:

The bubbler tubes are located upstream of the trash rack, inside the wet well, and at the outfall structure, which can be located on Appendix D "Sensor Location Map". The possibility of debris clogging the bubbler is remote. The bubblers should have air blowing through the tubes at all times to ensure that they are kept free from debris. The bubbler system should be tested and cleaned every six month to ensure that the system is operating correctly and is free of debris.

Pump & Impeller Inspection:

Impellers should be inspected annually, before the rainy season, to verify that they are in proper working condition. Pump casings should be tapped with a ball peen hammer at numerous locations and all rusted areas, to assure the casing is still in good repair.

Lubrication:

There are several types of lubrication used at the pump station. Before lubricating any piece of equipment, verify that what is being used is compatible with manufacturer's recommendations.

Motors:

Each day the motors should be checked for excessive vibration and heat if the motors are currently running. If motors are not running during daily inspections, each motor should be manually ran on a weekly basis to complete inspection. Oil levels should be checked each day an operator is on site, but at a minimum at least every week.

Wet Well Cleaning:

Inspection of the wet well should be conducted each day an operator is on site but weekly as a minimum, and cleaned as required. A thorough cleaning shall be conducted on an annual basis.

General Cleaning:

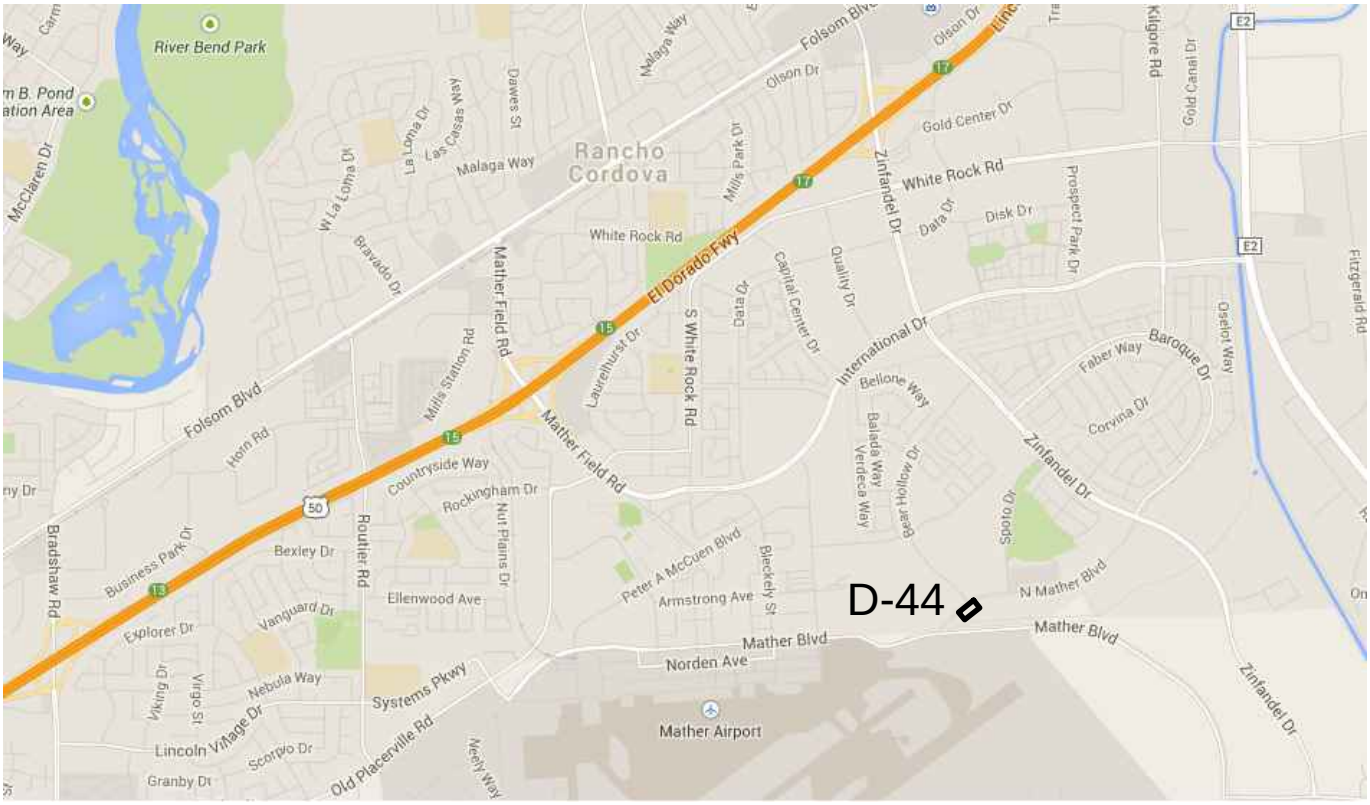
Each day an Operator is on site a general inspection of the grounds should be conducted. Trash and debris shall be picked up and disposed, and weed control measures maintained.

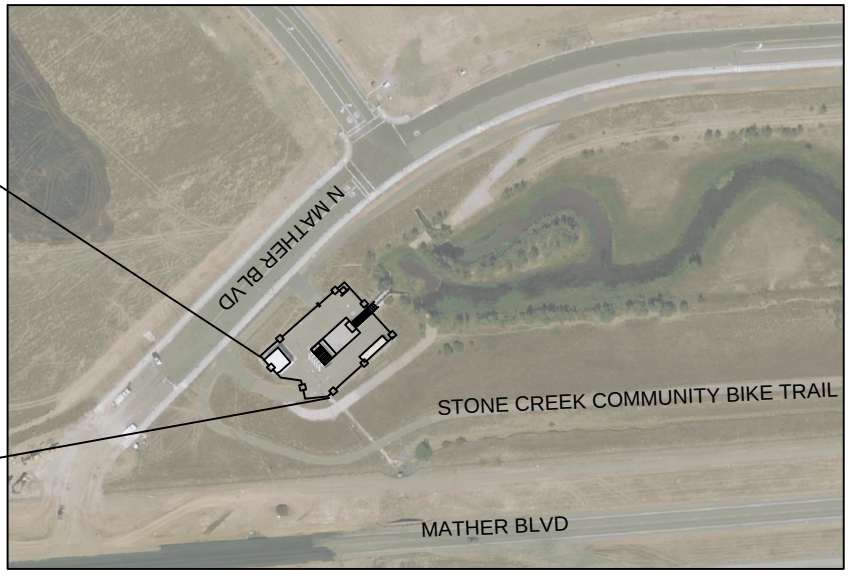
Alarm:

The facility has an auto dialer system in place that will notify Operators via telephone if the facility should encounter an alarm event. Appendix E "Alarm List" makes reference of the type of alarm, the priority, and if the alarm will "call out" to the Operator.

Appendix A
Vicinity Map

D-44 Bear Hollow Drainage Pump Station
Vicinity Map



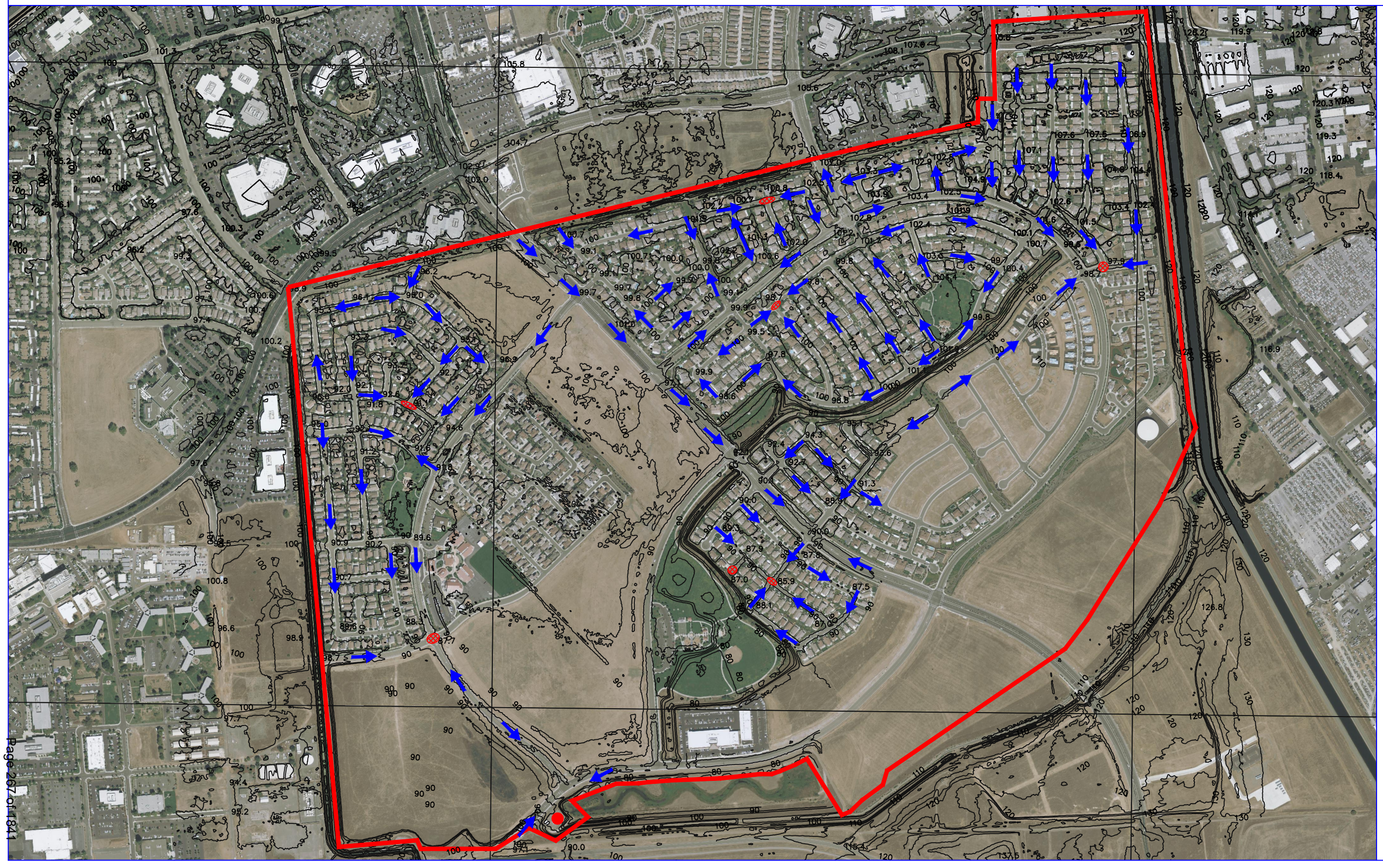


City of Rancho Cordova
Department of Public Works
Drainage Operations & Maintenance

Appendix B
Watershed Map

D-44 BEAR HOLLOW

WATER SHED #13



CITY OF RANCHO CORDOVA
CALIFORNIA
Incorporated 2003

- PUMP LOCATION
- Flow
- AREAS OF CONCERN

N

DRAINAGE SHED AREA:
686.9 AC
1.11 MI²

ATTACHMENT 2
Contract No. 2022-245

Appendix C
Generator-Permit to Operate

Larry Greene
AIR POLLUTION CONTROL OFFICER

May 1, 2015

Mr. Britton Snipes
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Dear Mr. Snipes:

Your Permit to Operate (#24562) is issued **with specific conditions**. If you have any questions regarding the permit conditions contact the District. There is an appeal process for any disputed permit conditions, but you must file an appeal within 30 days of the Permit to Operate being issued. **After this 30-day period, operation under this Permit to Operate shall be deemed acceptance of all the specified conditions.**

Please make all equipment operators aware of the conditions on your Permit to Operate. District staff will conduct periodic inspections of your facility to determine compliance with the conditions of your Permit to Operate and applicable air quality rules. Failure to comply with permit conditions and/or District rules can result in civil/criminal penalties. A copy of the Permit to Operate must be available at the location of the permitted equipment.

If you have any questions regarding SMAQMD rules or permit conditions, you are encouraged to call the SMAQMD's Compliance Assistance Hotline at 916-874-4884 for free confidential assistance. The Compliance Assistance Program also offers free facility reviews consisting of an on-site physical inspection as well as a thorough records review to assist facilities in complying with newly issued permits or any other air quality regulation.

If you have any other questions regarding the issuance of this permit, fees, or basis for the final permit language, you may call the undersigned at 916-874-4863 or *JQuok@airquality.org*.

Sincerely,

Jeffrey Quok
Air Quality Engineer

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

SACRAMENTO METROPOLITAN
AIR QUALITY
MANAGEMENT DISTRICT

(916) 874-4800
FAX (916) 874-4899

PERMIT TO OPERATE

ISSUED TO: **CITY OF RANCHO CORDOVA**

EQUIPMENT LOCATION: **BEAR HOLLOW DR. AND N. MATHER BLVD., RANCHO CORDOVA, 95670**

PERMIT NO.	EQUIPMENT DESCRIPTION
24562	IC ENGINE STANDBY, MAKE: JOHN DEERE, MODEL: 6125HF070, SERIAL NO.: RG6125H038349, 563 BHP @ 1,800 RPM, 763 CU. IN. DISPLACEMENT, DIESEL FUELED, DRIVING AN EMERGENCY ELECTRIC GENERATOR.

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1. The equipment shall be properly maintained and operated in accordance with the manufacturer's recommendations at all times.
   [Basis: SMAQMD Rule 201, Section 405]

2. The Air Pollution Control Officer and/or authorized representatives, upon the presentation of credentials shall be permitted:
   A. To enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this Permit to Operate, and
   B. At reasonable times to have access to and copy any records required to be kept under terms and conditions of this Permit to Operate, and
   C. To inspect any equipment, operation, or method required in this Permit to Operate, and
   D. To sample emissions from the source or require samples to be taken.
   [Basis: SMAQMD Rule 201, Section 405]

DATE ISSUED: 05-01-2015
DATE EXPIRES: 02-04-2016 (UNLESS RENEWED)

LARRY GREENE
AIR POLLUTION CONTROL OFFICER

BY: _____

PERMIT NO.: 24562

REVOCABLE AND NON-TRANSFERABLE

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AIR QUALITY MANAGEMENT DISTRICT

3. This Permit to Operate does not authorize the emission of air contaminants in excess of those allowed by Division 26, Part 4, Chapter 3, of the California Health and Safety Code or the Rules and Regulations of the Sacramento Metropolitan Air Quality Management District (SMAQMD).
[Basis: SMAQMD Rule 201, Section 405]

4. The equipment shall not discharge such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
[Basis: SMAQMD Rule 402, Section 301]

5. A legible copy of this Permit to Operate shall be maintained on the premises with the equipment.
[Basis: SMAQMD Rule 201, Section 401]

EMISSIONS LIMITATIONS

6. The IC engine shall not discharge into the atmosphere any visible air contaminant other than uncombined water vapor for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than Ringelmann No. 1 or equivalent to or greater than 20% opacity.
[Basis: SMAQMD Rule 401, Section 301]

7. The emissions from the IC engine shall not exceed the following limits:
[Basis: SMAQMD Rules 201, Section 405 and 202, Section 301]

Pollutant	Emission Factors (A) (g/hp-hr)	Maximum Allowable Emissions (B)		
		(lb/day)	(lb/quarter)	(lb/year)
VOC	1.0	29.8	248	248
NOx	6.9	61.7	1,713	1,713
SOx	0.005	0.1	1.2	1.2
PM10	0.17	5.1	42	42
PM2.5	0.17	5.1	42	42
$PM10_{BACT}$	0.15	4.5	37	37
$PM2.5_{BACT}$	0.15	4.5	37	37
CO	8.5	253.2	2,110	2,110

(A) Emission factors for VOC, NOx, and CO are based on the District's BACT standards at the time the engine was first permitted (see P/O 17438 Evaluation). PM10 and PM2.5 emission factors include both the condensable portion and the filterable portion of the particulates. The filterable portion is based on the certification standard and the condensable portion is derived using the condensable to filterable fraction, taken from AP-42, Table 3.4-2 (10/96), multiplied by the certification standard ((0.15 g/hp-hr + 0.15 g/hp-hr *0.0077/0.0496)=0.17 g/hp-hr). SOx emission factor is based on AP-42, Table 3.3-1 (10/96) using a fuel sulfur content of 15 ppm.
(B) Emissions are based on 563 bhp, 24 hours/day, 200 hours/quarter, and 200 hours/year of operation. All emission limits are in English units.

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AIR QUALITY MANAGEMENT DISTRICT

EQUIPMENT OPERATION

8. The IC engine shall operate only for the following purposes and shall not operate more than the following hours:
[Basis: SMAQMD Rule 202, Section 110.2 and Title 17 CCR, Section 93115.6 (a)(3)(A)]

Type of Operational Hours	Maximum Allowable Operation	
	(hours/quarter)	(hours/year)
Maintenance Purposes (A)	50	50
All Operation - Maintenance (A) and Emergency (B)	200	200

(A) Maintenance purposes is defined as: the operation of an IC engine in order to preserve the integrity of the IC engine, its associated generator or the facility's electrical distribution system, or when required by the SMAQMD to verify compliance with the applicable rules and regulations.
(B) Emergency is defined as: when electrical service from the serving utility is interrupted by an unforeseeable event.

9. The IC engine shall be equipped with a non-resetting hour meter, with a minimum display capability of 9,999 hours, to ensure compliance with Condition Nos. 7 and 8.
[Basis: SMAQMD Rule 201, Section 405 and Title 17 CCR, Section 93115.10 (d)(1)]

10. Upon request of the Air Pollution Control Officer or designee, once each year, during daylight hours, the IC engine shall be run at maximum anticipated load, from a cold start condition, for observation of compliance with opacity limitations.
[Basis: SMAQMD Rule 201, Section 405]

11. The IC engine shall be fueled with CARB diesel fuel, or an alternative diesel fuel that meets the requirements of the verification procedure (as codified in Title 13, CCR, Sections 2700-2710), or an alternative fuel, or CARB diesel fuel used with fuel additives that meets the requirements of the verification procedure, or any combination of fuels listed in this condition.
[Basis: Title 17 CCR, Section 93115.5, Section (b)]

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AIR QUALITY MANAGEMENT DISTRICT

RECORDKEEPING & REPORTING

12. The following records shall be continuously maintained onsite for the most recent five year period and shall be made available to the Air Pollution Control Officer upon request. Monthly, quarterly, and annual records shall be made available within 30 days of the end of the reporting period.
[Basis: SMAQMD Rule 201, Section 405 and Title 17 CCR, Section 93115.10 (f)(1)]

Frequency	Information to be Recorded
When Operated	A. Date. B. Purpose – Either Maintenance (M) or Emergency Power (E). C. Number of hours of operation.
Monthly	D. Total number of hours of operation for each operating mode (hours/month).
Quarterly	E. Total number of hours of operation for each operating mode (hours/quarter).
Annually	F. Total number of hours of operation for each operating mode (hours/year).
All fuel deliveries	H. Retain fuel purchase records that account for all fuel purchased for use in all engines. Fuel purchase records shall include: i. Identification of type of fuel (CARB diesel, alternate diesel etc.) ii. Quantity of fuel purchased. iii. Date of fuel purchase. iv. Signature of person receiving fuel. v. Signature of fuel provider indicating that fuel was delivered.

NESHAP SUBPART ZZZZ - NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES

13. The following Maintenance Management Practices (MMP) shall be performed in accordance with the following schedule.
[Basis: 40 CFR, Section 63.6603 and Subpart ZZZZ Table 2D]

Maintenance activity	Frequency
A. Change oil and filter	At least once every calendar year
B. Inspect air cleaner	At least once every calendar year
C. Inspect all hoses and belts	At least once every calendar year

14. If the engine is operating during an emergency and it is not possible to shut down the engine in order to perform the MMP on the schedule required in Condition 13, or if performing the MMP on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the specific MMP can be delayed until the emergency is over or the unacceptable risk has abated. The MMP should be

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AIR QUALITY MANAGEMENT DISTRICT

performed as soon as practicable after the emergency has ended or the unacceptable risk has abated. Sources must report to the federal administrator any failure to perform the MMP on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.
[Basis: 40 CFR, Section 63.6602 and Subpart ZZZZ Table 2D Footnote 2]

15. As an alternative to Condition 13 A., the owner/operator has the option to utilize an oil analysis program as described below in order to extend the specified oil and filter change requirement.
    A. The oil analysis must be performed at the same frequency specified for changing the oil as specified above.
    B. The analysis program must at a minimum analyze the following three parameters: total base number, viscosity, and percent water content.
    C. The condemning limits for these parameters are as follows: total base number is less than 30 percent of the total base number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5.
    D. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil.
    E. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis.
    F. If the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later.
    G. The oil analysis program shall be part of the maintenance plan for the engine as specified in Condition 17.
    [Basis: 40 CFR, Section 63.6625(i)]

16. The operator shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
    [Basis: 40 CFR, Section 63.6625(h) and Table 2 d of Subpart ZZZZ Part 63]

17. The engine shall be maintained according to the manufacturer's emission-related operation and maintenance instructions or the owner/operator can develop and follow their own maintenance plan in accordance with good air pollution control practices.
    [Basis: 40 CFR, Section 63.6625(e)(4) and Table 6 of Subpart ZZZZ Part 63]

18. The following records shall be continuously maintained onsite for the most recent five year period and shall be made available to the air pollution control officer upon request.

Frequency	Information to be Recorded
When event occurs	A. Occurrence and duration of each malfunction of operation. **[Basis: 40 CFR, Section 63.6655(a)(2)]** B. Actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process to its normal or usual manner of operation. **[Basis: 40 CFR, Section 63.6655(a)(5)]** C. All maintenance conducted on the engine (e.g. change oil and filter, inspect air cleaner, and inspect all hoses and belts). **[Basis: 40 CFR, Section 63.6655(e)(2)]**

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Frequency	Information to be Recorded
	D. If the oil analysis option is utilized as specified in Condition 15, records of the parameters that are analyzed as part of the oil analysis program and the results of the analysis. **[Basis: 40 CFR, Section 63.6625(i)]**

Your application for this air quality Permit to Operate was evaluated for compliance with Sacramento Metropolitan Air Quality Management District (SMAQMD), state and federal air quality rules. The following listed rules are those that are most applicable to the operation of your equipment. Other rules may also be applicable.

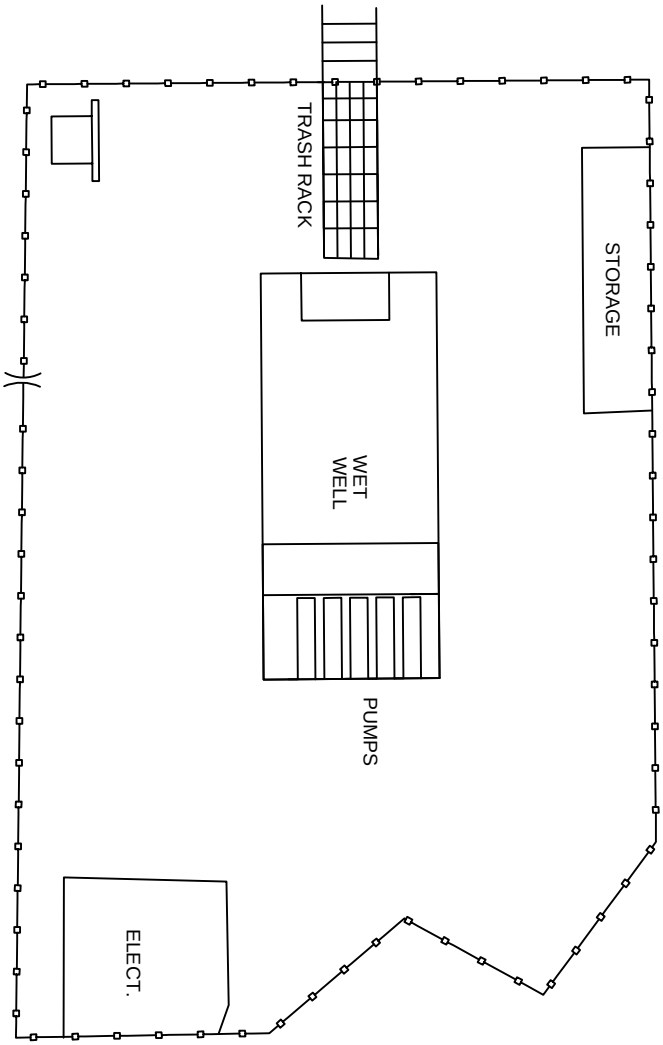
SMAQMD RULE NO.	RULE TITLE
201	GENERAL PERMIT REQUIREMENTS (8-24-06)
202	NEW SOURCE REVIEW (10-28-10)
401	RINGELMANN CHART (4-19-83)
402	NUISANCE (8-3-77)
406	SPECIFIC CONTAMINANTS (12-6-78)
420	SULFUR CONTENT OF FUELS (8-13-81)
STATE	REGULATION TITLE
TITLE 17 CCR SECTION 93115	CARB AIR TOXICS CONTROL MEASURES - STATIONARY COMPRESSION IGNITION ENGINES
FEDERAL	REGULATION TITLE
40 CFR 63 SUBPART ZZZZ	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS - STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES

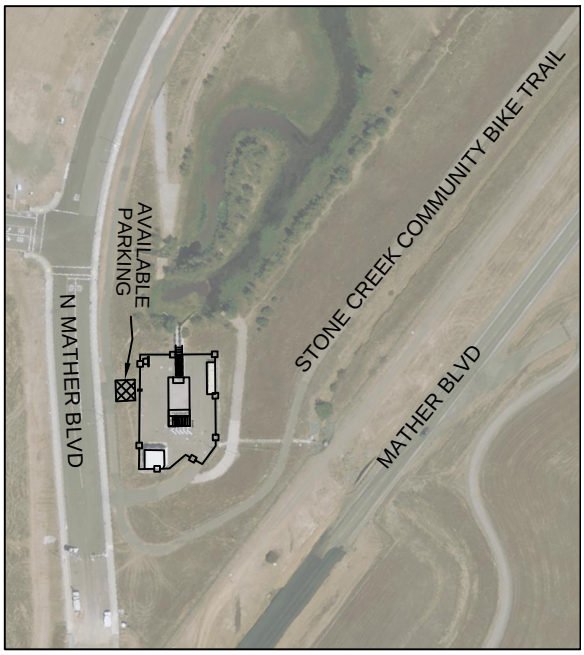
In addition, the conditions on this Permit to Operate may reflect some, but not all, requirements of these rules. There may be other conditions that are applicable to the operation of your equipment. Future changes in prohibitory rules may establish more stringent requirements which may supersede the conditions listed here.

For further information please consult your SMAQMD rulebook or contact the SMAQMD for assistance.

Appendix D
Sensor Location Map

D-44 BEAR HOLLOW - SENSOR LOCATION MAP





City of Rancho Cordova
Department of Public Works
Drainage Operations & Maintenance

Appendix E
Alarm List

Alarm List		
Description	**Priority**	**Call Out**
Station Voltage Alarm	Critical	Yes
Control Power Failure Alarm	Critical	Yes
Phase voltage Failure Alarm	Critical	Yes
Battery Low Alarm	Low	No
Bubbler Pressure Low Alarm	Medium	Yes
Intrusion Alarm	High	Yes
Wetwell level Out of Range Alarm	Medium	Yes
Wetwell Level High Switch Alarm	Critical	Yes
Wetwell Level High Alarm	Medium	Yes
Pump 1 Not Ready Alarm	Medium	No
Pump 1 Fail to Start Alarm	Critical	Yes
Pump 2 Not Ready Alarm	Medium	No
Pump 2 Fail to Start Alarm	Critical	Yes
Pump 3 Not Ready Alarm	Medium	No
Pump 3 Fail to Start Alarm	Critical	Yes
Pump 4 Not Ready Alarm	Medium	No
Pump 4 Fail to Start Alarm	Critical	Yes
Low Flow Pump 5 Not Ready Alarm	Medium	No
Low Flow Pump 5 Fail to Start Alarm	Critical	Yes
Trash Rack Not Ready Alarm	Medium	No
Trash Rack Fail to Start Alarm	Critical	Yes
Generator Fail to Start Alarm	Critical	Yes
Generator Not Ready Alarm	Medium	No
Generator Status Alarm	Low	No
PLC Battery Fail Alarm	Low	Yes
Inlet Basin out of Range Alarm	Medium	No
Outfall Level Out of Range Alarm	Medium	No
Outfall Level High Alarm	Critical	Yes
Inlet Gate Closed Alarm	Medium	Yes
Generator Running Four Hours Alarm	High	Yes

CITY OF RANCHO CORDOVA

Quick Reference Guide

STATION OPERATION

D-46

Mather Industrial

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Section 4 – Station Operational Parameters 2
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List of Appendices

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Appendix B Watershed Map
Appendix C Sensor Location Map
Appendix D Alarm List

Section 1 – Purpose of Guide

This guide is a summary of operations and maintenance procedures for the D-46 Mather Industrial Pump Station, which can be identified in Appendix A "Vicinity Map".

Section 2 – Purpose of the D-46 Pump Station

The purpose of the D-46 Mather Industrial pump station is to pump storm water from drainage Shed 62 into a 60" pipe eventually leading to Mayhew Slough. During heavy storm events, drainage water will flow into the pump station inlet basin and wet well from the surrounding area drainage systems. Storm water entering D-46 Mather Industrial is then pumped directly into the 60" pipe. If pumping capacity is surpassed by incoming flow, water may flow back into the underground system and temporarily release into the adjacent detention basin. In Appendix B "Watershed Map" is a map that shows the watershed that contributes runoff to this facility. The watershed is 70.9 acres, or 0.11 square miles.

Section 3 - Background

History:

The D-46 Mather Industrial pump station is located on the northeast corner of Routier Rd. and Old Placerville Rd. It was originally constructed in 1985, and consists of 2 electric powered pumps, 1 low-flow submersible electric pump, 1 inlet basin, 1 wet well, and a 60" outfall pipe.

Design Summary:

The D-46 Mather Industrial pump station was designed to handle a 100-year storm event, and will pump storm water as needed.

Section 4 – Station Operational Parameters

Diesel Engine and Generator:

There is no back-up generator located at the D-46 Mather Industrial Pump Station.

In the event of a power failure, a temporary portable generator sized 20 kW would be sufficient to operate a single 10 H.P. pump, 40kW to operate one of the 20 H.P. pumps, or100 kW to operate all three pumps. Currently there is a portable generator, which is located at the D-13 Mills Tower Pump Station that will operate the D-46 Mather Industrial Pump. There are electrical connections, which are currently available at the D-46 Mather Industrial Pump Station that will operate the D-46 Mather Industrial Pump Station.

Slide Gates:

One manual slide gate located in the inlet basin is used to isolate the pump station from the upstream drainage facilities.

Inspect annually to ensure that the slide gate is able to open and close completely. The slide gate should be checked by fully opening and closing the gate. Leave the gate in open position after inspection.

Pumps:

There are three pumps installed at the pump station. Pump 1 has 4 H.P. electric motor and Pumps 2 and 3 each have 60 H.P. electric motors. The capacity of Pump 1 is 449 GPM / 1 CFS and the capacity of Pump 2 and 3 is 7,650 GPM / 17 CFS. The total pumping capacity of the station is 15,749 GPM / 35 CFS.

The two 60 H.P. electric pumps are automatically set to alternately run as second and third pumps to equalize their operating hours. The smaller 9.4 H.P. electric pump is always set to operate first. The pumps are programmed to turn on and off at the following water elevations (based on the bubbler gage) in the wet well:

Pump	On	Off
Lead	8.8	6.0
Lag 1	11.1	6.5
Lag 2	12.4	7.0

Trash Rack:

The D-46 Mather Industrial pump station is protected against debris by a single vertical trash rack.

The trash rack is located in the inlet basin to screen debris from storm water entering the station via the underground drainage pipe system. The trash rack is located under a grated metal cover.

The trash rack is aligned vertically, and a truck winch or a come along strap hooded to the overhead frame is utilized to lift the trash racks out of the inlet basin whenever cleaning is required. A metal shelf attached to the bottom of the trash rack retains the debris that has been caught as the trash rack is lifted out of the inlet basin.

There is no alarm for high water level upstream of the trash rack.

Inspect frequently during wet weather, and remove trash and debris as needed.

Pump Discharge Flap Gates (1):

Inspect monthly and after each major storm to confirm that the flap gates are free swinging, and are not jammed open with debris. The discharge flap gate is located in facility 326-194-M18 on Routier Rd.

Pump Discharge Check Valves (3):

Inspect annually to ensure that the check valves are able to open and close completely.

Bubblers:

One bubbler tube is located on the east side of the circular wet well, and pump operation is controlled by readings from the bubbler, which can be identified on Appendix C "Sensor Location Map".

The possibility of debris clogging the bubbler is remote. The bubbler should have air blowing through the tubes at all times to ensure that they are kept free from debris. The bubbler system should be tested and cleaned every six months to ensure that the system is operating correctly and remains free of debris.

An alarm for high water level is located on the east side of the circular wet well, just downstream of the trash rack. The high level alarm is in place to service as a secondary alarm in the event of a bubbler failure. The alarm should be tested and cleaned every six months to ensure that the system is operating correctly and remains free of debris.

Pump & Impeller Inspection:

Impellers should be inspected annually, before the rainy season, to verify that they are in proper working condition. Pump casings should be tapped with a ball peen hammer at numerous locations and all rusted areas, to assure the casing is still in good repair.

Lubrication:

There are several types of lubrication used at the pump station. Before lubricating any piece of equipment, verify that what is being used is compatible with manufacturer's recommendations.

Motors:

Each day the motors should be checked for excessive vibration and heat if the motors are currently running. If motors are not running during daily inspections, each motor should be manually ran on a weekly basis to complete inspection. Oil levels should be checked each day an operator is on site on a weekly basis.

Wet well Cleaning:

Inspection of the Wet well should be conducted each day and cleaned as required. A thorough cleaning shall be conducted on an annual basis.

General Cleaning:

Each day an Operator is on site a general inspection of the grounds should be conducted. Trash and debris shall be picked up and disposed, weed control measures maintained.

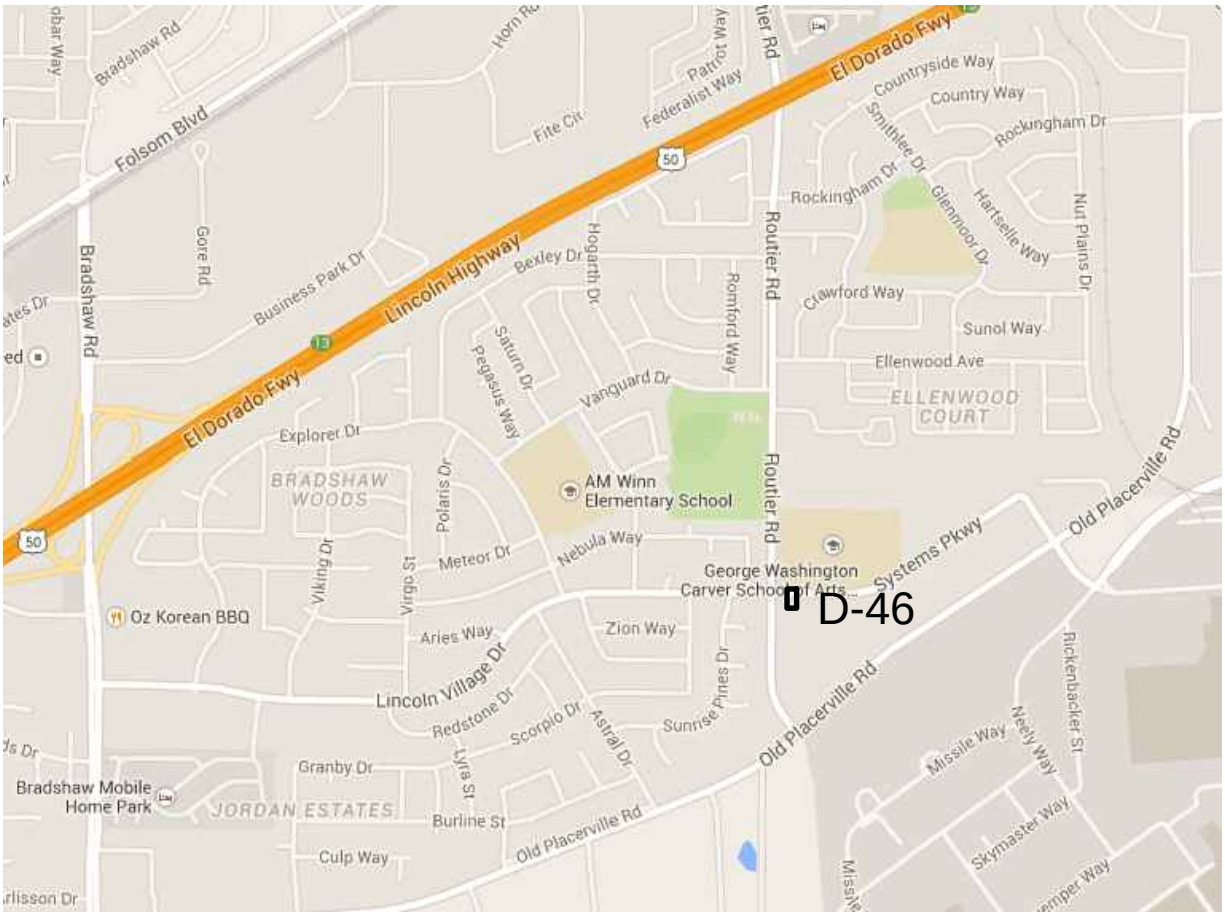
Alarm:

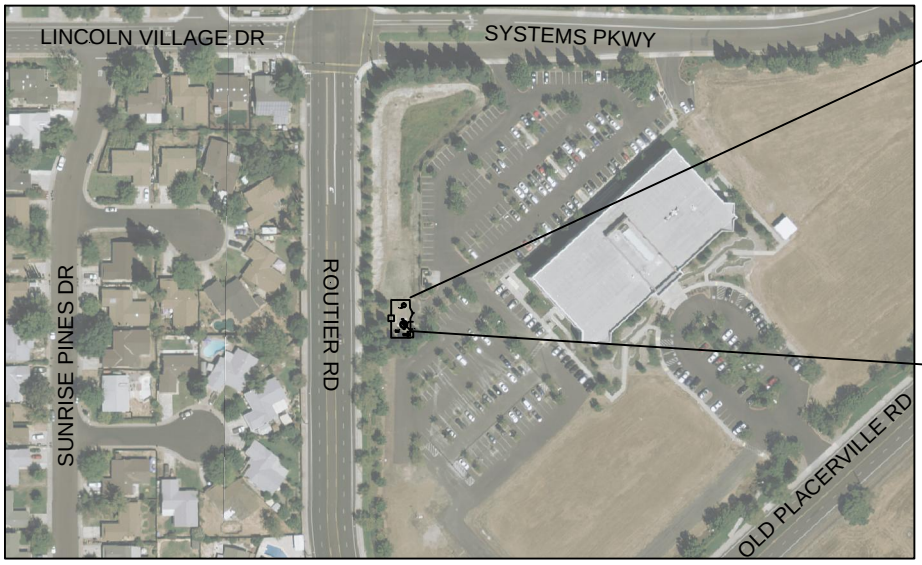
The facility has an auto dialer system in place that will notify Operators via telephone if the facility should encounter an alarm event. Appendix D "Alarm List" makes reference of the type of alarm, the priority, and if the alarm will "call out" to the Operator.

Appendix A

Vicinity Map

D-46 Mather Industrial Drainage Pump Station
Vicinity Map





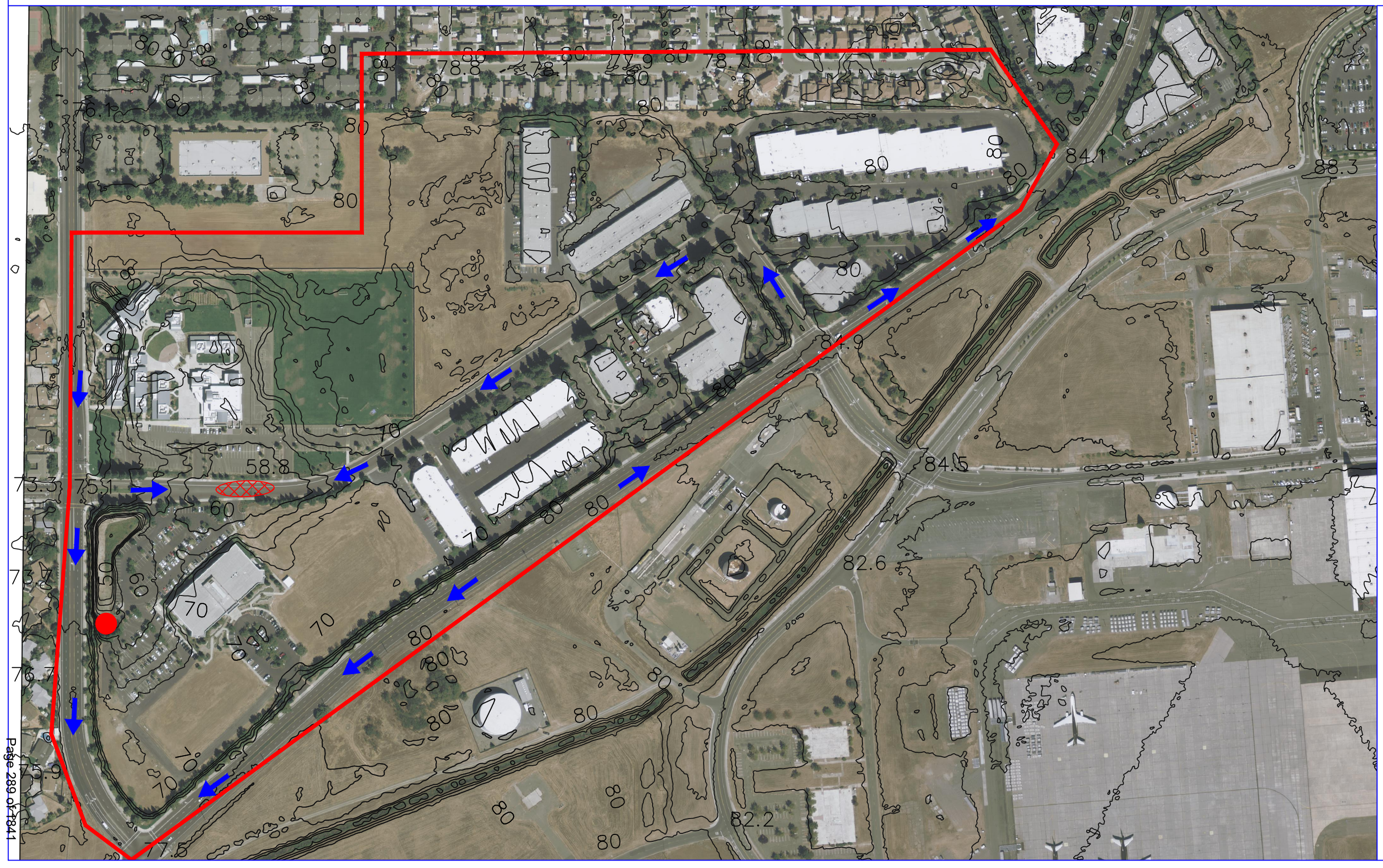
City of Rancho Cordova
Department of Public Works
Drainage Operations & Maintenance

Appendix B

Watershed Map

D-46 MATHER INDUSTRIAL

WATER SHED #62



CITY OF RANCHO CORDOVA
CALIFORNIA
Incorporated 2003

- PUMP LOCATION
- Flow
- AREAS OF CONCERN

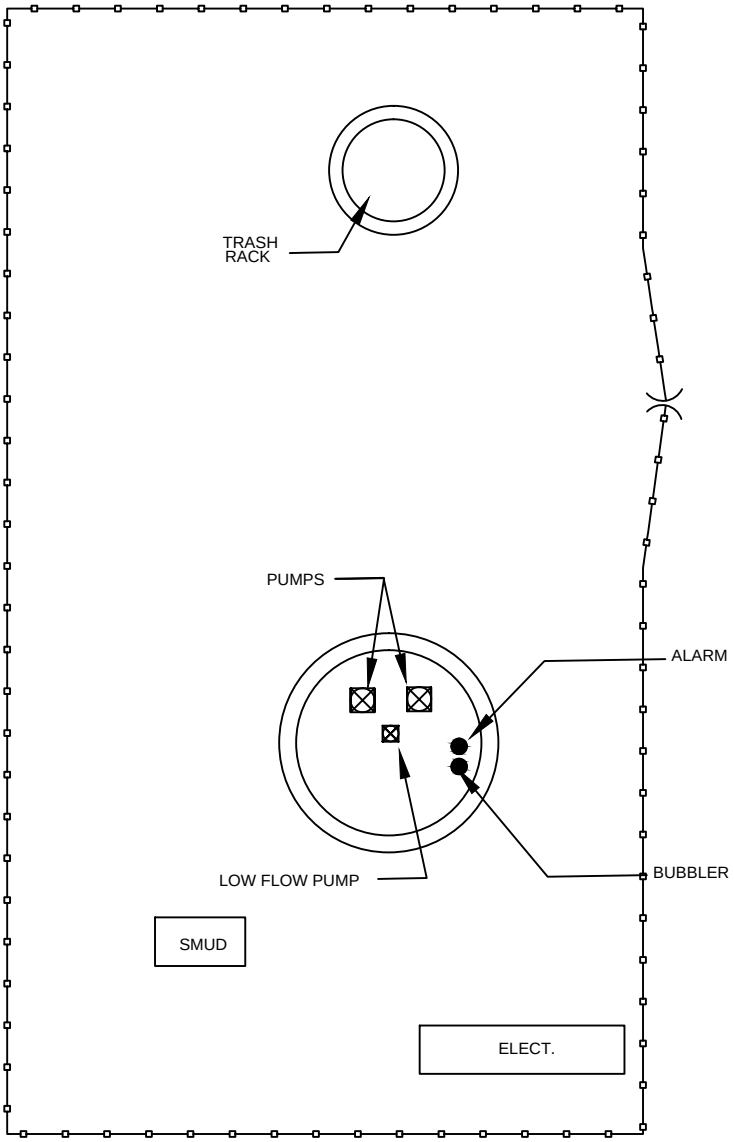
N

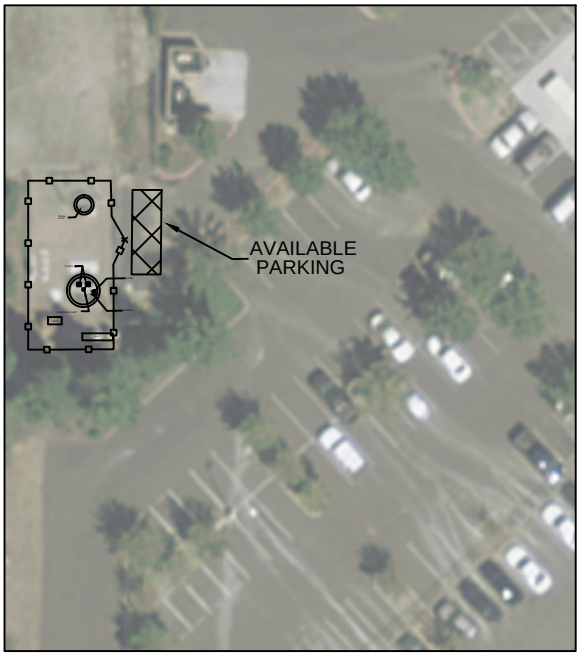
DRAINAGE SHED AREA:
70.9 AC
0.11 MI²

Appendix C

Sensor Location Map

D-46 MATHER INDUSTRIAL - SENSOR LOCATION MAP





City of Rancho Cordova
Department of Public Works
Drainage Operations & Maintenance

Appendix D

Alarm List

Alarm List		
Description	**Priority**	**Call Out**
Station Power Failure Alarm	Critical	Yes
Control Power Failure Alarm	Critical	Yes
Phase Voltage Failure Alarm	Critical	Yes
Battery Low Alarm	Low	No
Bubbler Pressure Low Alarm	Medium	Yes
Intrusion Alarm	High	Yes
Wetwell level Out of Range Alarm	Medium	Yes
Wetwell Level High Switch Alarm	Critical	Yes
Wetwell Level High Alarm (Physical)	Medium	Yes
Wetwell Level High Alarm (Logical)	Critical	Yes
Wetwell Level Low Alarm (Logical)	Medium	Yes
Pump No. 1 Not Ready Alarm	Critical	Yes
Pump No. 1 Fail To Start Alarm	Critical	Yes
Pump No. 2 Not Ready Alarm	Critical	Yes
Pump No. 2 Fail To Start Alarm	Critical	Yes
Pump No. 3 Not Ready Alarm	Critical	Yes
Pump No. 3 Fail To Start Alarm	Critical	Yes
Pump No. 1 Overload	Critical	Yes
Pump No. 2 Overload	Critical	Yes
Pump No. 3 Overload	Critical	Yes

September 22, 2022

REQUEST FOR PROPOSALS FOR: STORMWATER PUMP STATION OPERATIONS AND MAINTENANCE

ADDENDUM #1

TO ALL PROSPECTIVE BIDDERS:

Please see below for answers to the questions received prior to the Deadline for Written Questions/Clarifications (Friday, 9/16/2022 at 4:00 pm). There is no change in Proposal Deadline (Friday, 9/30/2022 at 4:00 pm). An optional site tour of the pump stations will be offered. Consultants may attend either 2:00 pm on Monday, 9/26/22, or 2:00 pm on Wednesday, 9/28/22 starting from the City Hall Lobby.

QUESTIONS AND ANSWERS

1. Can the city provide additional information on the spare parts and materials that will require off-site storage? Quantities, current parts being stored, etc..

The City has a storage container at the City's Bear Hollow Pump station and additional storage availability at the City's Corp Yard. Off-site storage is not anticipated.

2. Can the city provide specific information on the various makes and models of the pumps at each of the pump stations? I did not see this specific information in the RFP.

The pump stations have pumps of various makes and models including Munz Propeller Pumps, Aurora Pumps, Peerless 24 MF, Byron Jackson 20DH Type D, and Prime Pump M14. Consultants are invited to verify pump makes and models at each site at the site visits offered on 9/26/22 and 9/28/22.

3. Will there be a field meeting with the existing contractor to hand off keys and other equipment pertinent to the operation of the stations?

Yes, please expect a minimum of one field meeting. The existing contract and the new contract are expected to have 1 month of overlap to facilitate communication and continuity in pump station operations.

4. Can the city provide additional information on the current SCADA (remote monitoring system) that you are currently using? Does the city own a laptop for remote access/control of some or all of the stations?

The City has an Ignition Standard software subscription that includes control and alarms from all pump stations. The City will issue the consultant one City laptop equipped with Ignition and appropriate security software.

5. Are there currently any known deficiencies or incomplete maintenance activities that need to be completed?

The City has an existing pump station improvement project under design to incorporate upgrades to instrumentation & controls and intermittent electrical power issues. The project is anticipated to complete 90% design in early December 2022, with bid posting in January 2023.

6. Is it possible to schedule a site visit to each of the 6 pump stations to review current conditions?

Yes, the City will offer site visits to interested consultants on Monday 9/26/22 and Wednesday 9/28/22. Please arrive at the City of Rancho Cordova City Hall Lobby at 2pm. Then, drive behind the City staff member from one pump station to the next, through all 6 pump station sites. The same route will be used on each day, so the preferred day may be chosen by the consultant based on individual convenience.

2:00pm Monday 9/26/2022 OR 2:00pm Wednesday 9/28/22
Site Visits starting at City Hall Lobby

7. Can provide the annual contract expenditures spent to maintain the 6 pump stations (or average annual cost)?

Pump station maintenance expenditures are estimated at approximately $110,000 annually, not including utility or permitting fees.

8. Is there currently or would the city consider, compensation for providing 24-hour emergency on-call services?

Yes. In the proposal, please include an approach for providing 24-hour per day, 365-days per year on-call availability as specified in Appendix D Technical Provisions, Section C On-call Emergency Response (page 41 of the RFP pdf). Compensation in the contract is based on time and materials. Cost proposals may include a separate after-hours/emergency response rate (see page 9 of the RFP pdf for Cost Proposal Details).

END OF ADDENDUM 1

Margarita Dronov, PE
Associate Civil Engineer

September 23, 2022

REQUEST FOR PROPOSALS FOR: STORMWATER PUMP STATION OPERATIONS AND MAINTENANCE

ADDENDUM #2

TO ALL PROSPECTIVE BIDDERS:

Please see below for answers to the questions received prior to the Deadline for Written Questions/Clarifications (Friday, 9/16/2022 at 4:00 pm). There is no change in Proposal Deadline (Friday, 9/30/2022 at 4:00 pm). An optional site tour of the pump stations will be offered. Consultants may attend either 2:00 pm on Monday, 9/26/22, or 2:00 pm on Wednesday, 9/28/22 starting from the City Hall Lobby.

QUESTIONS AND ANSWERS

1. Can the city provide additional information on the spare parts and materials that will require off-site storage? Quantities, current parts being stored, etc..

The City has a storage container at the City's Bear Hollow Pump station and additional storage availability at the City's Corp Yard. Off-site storage is not anticipated.

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2:00pm Monday 9/26/2022 OR 2:00pm Wednesday 9/28/22
Site Visits starting at City Hall Lobby

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9. Section 3 – Proposal Requirements states that the proposal shall be limited to 5 double sided pages. Is this a total of 10 sheets of content?

Yes. 10 sheets of content.

10. Who is the current operator of the pump stations?

H2O Urban Solutions, Inc.

11. Does the City have a budgeted yearly cost for these services?

Pump station maintenance expenditures are estimated at approximately $110,000 annually, not including utility or permitting fees.

12. Are the pump stations visited daily (Mon-Fri)?

Pump stations are inspected as needed to ensure they are operational, and no issues need to be addressed.

13. Is there preference on how costs for repairs will be handled? Contractor pays and reimburses client afterwards or will expenses go directly to client?

The City preference is for repairs to be paid by the consultant with reimbursement by the City through standard monthly invoices.

14. In regard to subconsultants, which ones should be named? For example, we would not normally name a local vacuum truck company but we would name a Systems Integrator that works on SCADA systems.

The City has an existing contract with Coastline Water Resources, Inc. for city-wide storm drain maintenance which may be used to coordinate wet well cleanings/vacuum at pumps stations through City-issued work orders. All other subconsultants should be named.

END OF ADDENDUM 2

Margarita Dronov

Margarita Dronov, PE
Associate Civil Engineer

Request for Proposals Professional Services for Stormwater Pump Station Operations and Maintenance

City of Rancho Cordova
Department of Public Works
2729 Prospect Park Drive
Rancho Cordova, CA 95670

MCE CORPORATION
www.mce-corp.com
Employee Owned / Service Driven

Submitted By: MCE Corporation
4000 Industrial Way
Concord, California 94520
Attn: Dalia Fadl, Principal Engineer
Due: Friday, September 30, 2022
By 4:00 PM

Original

Ms. Dalia Fadl
Principal Engineer
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, California 95670

September 29, 2022

RE: RFP for Professional Services for Stormwater Pump Station Operations and Maintenance

Dear Ms. Fadl:

MCE Corporation is pleased to submit this proposal to the City of Rancho Cordova. We are confident you will find our bid competitive and complete. MCE has been successfully performing work for the City of Rancho Cordova for over a decade. Overall, MCE has been providing comprehensive maintenance services to California cities for nearly 40 years. The Maintenance Division works solely for public agencies and we understand the unique requirements of performing in the public sector. In addition, MCE has a Construction Division which performs asphalt, concrete and drainage repairs and maintenance. That division has worked for PG& E for nearly 40 years. MCE has viewed all of the sites and believes that the level of service and adherence to the specifications is not occurring on a consistent basis. MCE can and will improve the quality of maintenance at these facilities.

MCE has enlisted for this project various sub consultants. They include Telstar for project engineering and instrumentation SCADA services. Electrical Design & Motor Control Inc, for instrumentation services (they are a certified Ignition Software company). Holt of California for specific generator services. Odell's Pump & Motor Service for submersible and centrifugal pump maintenance repairs and CraneTech Inc, for crane maintenance, repairs and certification.

We believe the combination of our experience and employee's assigned will make MCE the best choice. MCE and this team have the specific experience to transition these services from the current operator. In 2003, we successfully transitioned those services from the County in Elk Grove and operated their stations until 2011 The stations are very similar. Further, our Area Manager, Vince Cudia, was the person responsible at MCE for that transition. His experience will be invaluable to the City of Rancho Cordova as it navigates the turnover with the current operator, if MCE is selected. Additionally, Mr. Cudia was an Assistant Mechanical Maintenance Technician for Sacramento County before MCE and he has direct and specific knowledge of the operation of these stations.

Our sub consultants are also experienced with these stations and, together, we bring the needed background and experience to successfully manage these stations for the City of Rancho Cordova. We understand individually and collectively all of the required tasks. We are prepared to begin immediately as the condition and function is behind where it should be at the end of September. Further, immediate condition assessments

will need occur to identify any needed repairs before too much time has elapsed as the start date is December 1. All of our assessments and preventive maintenance tasks will be documented so that adequate records are kept of every task performed. Accurate record keeping is critically important in providing thorough and cost-effective operation and maintenance of the stations.

The limitation to 5 double sided pages of certain sections in this response strongly precludes MCE from being able to fully show our program and capabilities. We ask that the City allow MCE and its team to come in and provide the entire program before the City makes its choice. We are confident that the City will see that we are the best choice. Our T&M proposal is based on your specifications and our experience. The proposal shows the activities, frequencies and anticipated number of hours and costs per station. Our proposal can be considered a not to exceed proposal and cannot be greater without the expressed and written consent of the City. The City should reserve a contingent fund to cover larger repairs to the stations that are not part of our T&M proposal. Additionally, MCE can arrange to get the generators fueled as an additional cost to this proposal.

We have provided an example of our PM tasks. While we had wanted to include the entire program, the 5 page double sided limit prevented this. These PM's are the backbone of successful pump station operation and will ensure timely notification of issues relative to the mechanical operation of the system. Our PM program is being converted to a Salesforce platform. We are doing beta testing this month in Dublin with expected rollout there in October. If awarded this contract, MCE will immediately begin converting our PM program to this platform giving the City internet access to the PM program. Additionally, MCE has read and incorporated the information provided in the addendum.

We look forward to meeting with the City of Rancho Cordova to further demonstrate our program and abilities.

Respectfully,
MCE Corporation

Steve Loweree
Vice President
925-452-2709 (Office)
925-766-0756 (Cell)

SCOPE OF SERVICES UNDERSTANDING

SCOPE OF SERVICES UNDERSTANDING

MCE Corporation and its team fully understand the task at hand for the City of Rancho Cordova. Some of the same subcontractors successfully performed pump station operation and maintenance in Elk Grove between 2003 and 2011. As demonstrated in our proposal, MCE has a fully developed program ready to be implemented. This program was tested and proven successful in increasing functionality and reducing unplanned and premature repairs.

MCE is prepared to assess the condition of the stations and execute its plan on the very first day of operation. Due to the present condition, we have to be ready on the first day as there is much to do. The goal is to improve the documentation of the work provided at the stations, the cost of that work so that the stations are fully functional as soon as possible. Special considerations that the City of Rancho Cordova should be most aware of are each firm's ability to hit the ground running. There is very little time before the next rainy season and a significant amount of work must be completed before then.

Further, consideration needs to be given to backup pumping ability. Pumps can fail and, in the event of a failure, pumps may need to be brought in to serve as bypass pumps. These pumps are difficult to secure as there are few vendors with the capability to provide pumps large enough or in a timely manner. In the event of flooding in other parts of the country, these pumps may not be available at all. The City should consider purchasing a trailered pumping system so it will always have the capability to pump regardless of flooding situations in the region or across the United States. These systems typically cost between $30,000-$50,000 depending on set up.

The various functions of our team are as follows;

- Day to Day Operation of Stations and Main Contact - Vince Cudia - MCE Corporation
- General engineering support – Jon Crawford PE,QSD, Interwest Consulting Group, Telstar Inc. and Electrical Design and Motor Control, Inc.
- PCL and monitoring calibration and maintenance, electrical maintenance and troubleshooting, auto dialer technical support and general system assistance – Electrical Design and Motor Control, Inc.
- Generator preventive maintenance tasks, repairs and troubleshooting – Holt of California
- Submersible Pump Troubleshooting and Repair – Odell's Pump and Motor Service
- Crane Inspection and Repair – Cranetech
- MCE understands the Coastline takes care of the wet wells.

MCE is aware of the City's insurance requirements and prepared to meet them. Further, MCE reviewed the City's Professional Services Agreement and is prepared to sign the agreement.

PROJECT TEAM

PROJECT TEAM

Contact Person

The Project Manager will be Vince Cudia, Area Manager with MCE Corporation. This differs a bit from the request in the RFP in that Mr. Cudia is not a civil engineer. MCE believes that the single most important function of this contract is the operation and maintenance of the stations. They are not in good shape. We have engineers as subconsultants if the need arises.. Mr. Cudia has over 10 years of experience operating pump stations. Eight of those years have been with MCE. Prior to that, he served two years as Assistant Mechanical Maintenance Technician with Current operator. During that time, he serviced many of the stations that the City is taking over. He has specific knowledge of these stations.

Consulting Team Information

MCE Corporation

Background: MCE has been performing full service public works maintenance services for nearly 40 years. This includes the operation of pump stations amongst many of the firm's duties throughout all manner of public works functions including street, building, park, landscape and drainage maintenance. Additionally, MCE provides asphalt, concrete and drainage repairs and maintenance through its Construction Division. Both divisions employ approximately 50 people. MCE holds the following contractor licenses; A-General Engineering, B-General Building, C-8 Concrete, C-12 Earthwork and Paving and C-27 Landscape

Organization: MCE is operated by Jeff Core, President under the direction of the Board of Directors. MCE is an ESOP (Employee Stock Ownership Program) and an S Corporation.

Office Structure: The maintenance division is managed by a Vice President. Under the Vice President are Project Managers, Superintendents, Quality Assurance Manager, IT Manager, Safety Coordinator and clerical support in addition to all field personnel.
Equipment: MCE has a large variety of vehicles and equipment at its disposal. The list is rather long and the limitation to 10 pages in this RFP response precludes its inclusion. MCE can provide it upon request.

Telstar

Their professional capabilities include instrumentation and controls, electrical design and engineering. Electrical troubleshooting and repair, SCADA systems and software programming. Electrical and Control Systems Engineering Services

Electrical Design & Motor Control, Inc.

Their professional capabilities include instrumentation and controls, electrical and design and engineering. SCADA systems and software programming. Complete design, implementation and build capabilities including PE design/plan stamp/signing.

Holt of California
Their professional capabilities include maintenance and repairs of all types of stationary and portable generations. Load back testing, automatic transfer switches maintenance and repairs, annual level I and Level II maintenance.

Odell's Pump & Motor Service
Their professional capabilities include complete pump and motor replacement, pump and motor repairs and maintenance. Motor electrical troubleshooting and electrical repairs.

CraneTech Inc.
Their professional capabilities include maintenance and repairs of cranes and hoists. They also provide State/Cal OSHA mandated crane certification.

Consultant Experience on Similar Projects
In 2003, MCE assumed maintenance responsibilities of six pump stations in Elk Grove from Sacramento County. MCE operated these stations until 2011, and since 2019, we once again are provided pump station operations and maintenance to the City of Elk Grove. Further, Holt, Odell's and Telstar were all part of that transition and continued operations. As a group, we have successfully operated and maintained these stations at a high level of services.

Telstar Founded in 1981, Telstar has experience in many facets of pump stations including the design of a 2-mile, 20-inch diameter pipeline for the South County Regional Wastewater Authority. Tasks included a new outfall and energy dissipation structure, a control valve structure, pump station upgrades and 5 new recycled water turnouts for irrigation customers. Telstar is a state-certified instrumentation and controls integrator specializing in SCADA/PLC systems, measurement instrumentation, and automated process controls.

Holt of California has experience in all aspects of generator maintenance and repairs. They have provided continued service to MCE over the last 19 years for ongoing maintenance and repairs of the Elk Grove pump stations. They have the experience to provide any generator services that may be needed. They also service and repair automatic transfer switches.

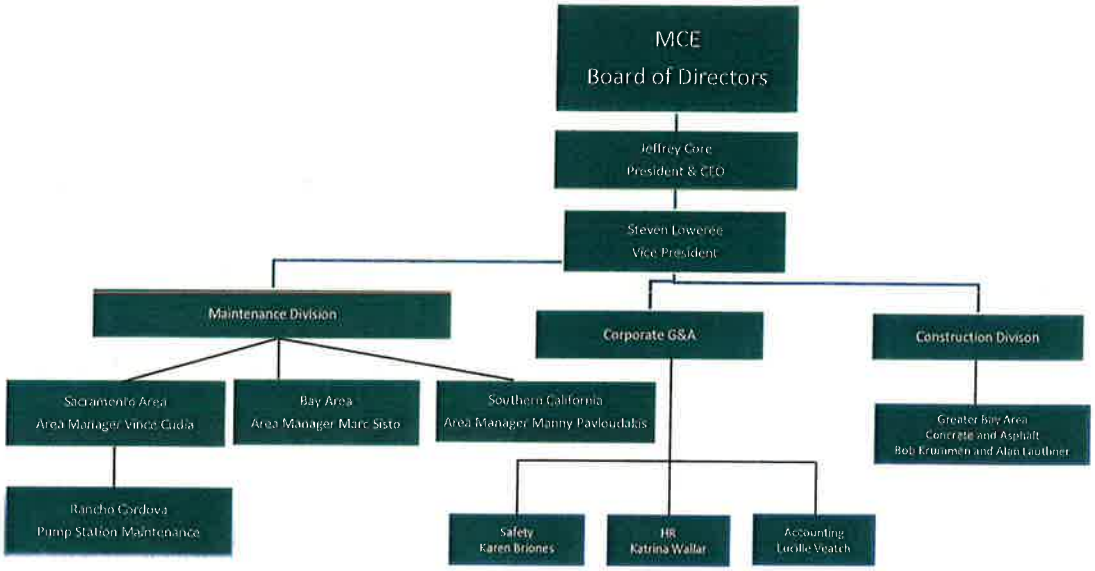
Odell's Pump & Motor Service has been in business since 1944, and has more than 100 years of combined experience. They have worked on several large projects in the region. They have experience providing a full array of water well pumps and motors and the ability to repair and or replace pumps and motors. Odell's has provided continued service of the City of Elk Grove pump stations for the last 19 years.

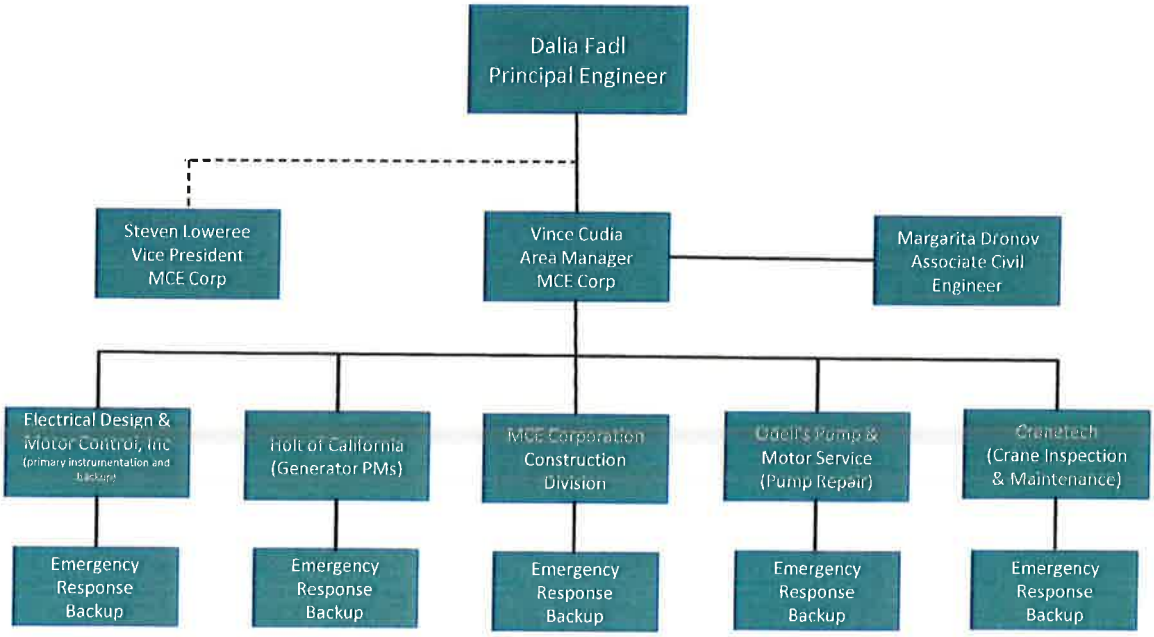
Electrical Design & Motor Control, Inc. Electrical Design and Motor Control Inc. is a full-service provider for control system integration. They have and do provide services to Safeway, Blue Diamond, OnTrac, FedEx, Amazon and many other companies. Electrical Design has completed over 3,000 projects for a diverse base of clients. They work with Industrial Automation Ignition, Solidworks, AutoCAD Electrical, Rockwell Automation RSLogix5, RSLogix500, Studio5000, FactoyTalk, Microsoft Visual Studio and Wonderware. Proficiency with- Siemens Step 7, GE Proficy, Automation Direct DirectSoft, Modicon ProWORX and CX-One.

CraneTech Inc. is a nationwide company providing crane safety inspection, maintenance and emergency repairs. CraneTech installed over 40 cranes and hoists for GILLIC LLC's BUS MANUFACTURING new California facility. The newly constructed, custom-designed, 600,000 sq. ft site continues the company's 128-year tradition of manufacturing in the San Francisco Bay area. They have also done work for Tesla, Applied Aerospace Structures Corp, Kinder Morgan and many other companies across the United States.

Interwest Consulting Group. Interwest is part of the team in case there are any engineering functions required that the other subconsultants cannot perform or it is more prudent to use Interwest. Interwest has a long and successful history in the Sacramento region.

Organizational Charts:
We have provided two charts; first is the MCE organizational structure.
Second is the structure we anticipate for the City of Rancho Cordova.





Summary of Key Staff and Innovative Ideas and Approaches

- Mr. Vince Cudia- Project Manager - MCE Corporation. Mr. Cudia has over 12 years of experience in operating pump stations, including the station about to be turned over to Rancho Cordova while he was with Current operator. Certifications include Grade 1 water treatment, certificate program through Snyder Electric on the Modicon programming and training on auto dialer programming through Wave Engineering. Innovative ideas included advising the City of Elk Grove for the need to have a backup pumping system in case a pump went down. The City purchased a trailered system that is still in use today and gives Elk Grove a more sustainable system in case of local or regional disaster or issues. Additionally, Mr. Cudia spearheaded the parting out of an old generator that resulted in no cost to the City and a $5000 check from a generator vendor.
- Anthony Strasburg- Maintenance Foreman- MCE Corporation. Mr. Strasburg has extensive experience in maintenance with MCE as a Drainage Foreman and with Cordova Recreation and Park District as a Lead Maintenance Worker.
- Ben Herston- Project Engineer – Telstar. Mr. Herston is a registered civil engineer (68796) with an MS from the University of California, Berkeley. Additionally, Mr. Herston is a Project Management Professional (PMP -470690) form the Project Management Institute.
- Mr. Mike Tolliver- Programing Manager – Electrical Design & Motor Control Inc. Mr. Tolliver and (EDMCI) do design, implantation and build, for various projects including, pump station systems. EDMCI are capable of providing PE design and plan (stamping) if needed.

Innovative Ideas and Approaches

The most significant issues facing these stations is the lack of ongoing repairs and maintenance. So, if providing schedules, logs and preventive maintenance programs is innovative, then that is MCE's innovation. We will be able to provide a cloud based pm program as indicated earlier in lieu of our paper program. Once the systems are maintained regularly and remaining issues are clarified, then MCE can work with the City and our subconsultants to address improvements.

PROJECT WORK PLAN

PROJECT WORK PLAN

The challenges that occur in operating these facilities are many but effectively met through planning and implementation of a well thought out plan.

Motor Inspection/Maintenance: 20 hours planned MCE time to check motors and to support Odell's Pump and Motor with their preventive maintenance tasks, including but not limited to annual upper and lower bearing oil, maintenance of oil dripper solenoids, general electrical assessment and other pm tasks and repairs.

Pump Inspection/Maintenance: 48 hours planned MCE time to check motors and to support Odell's Pump and Motor with their preventive maintenance tasks, including but not limited to visual inspection of mounting bolts, inspection for rust, impeller inspection and other pm tasks and repairs.

Wet Well Cleaning and Inspection: Time spent for MCE to open facilities for Coastline.

Generator Inspection and Maintenance: 65 hours planned MCE time to check motors and to support Holt of California with their preventive maintenance tasks, including but not limited to annual load test, level 2 pm service and other pm tasks and repairs.

Crane Inspection and Maintenance: 16 hours planned MCE time to check motors and to support CraneTech with their preventive maintenance tasks, including but not limited to annual test and inspection of crane components, annual certification of crane and other pm tasks and repairs.

Electrical Inspection and PLC Programming: 12 hours planned MCE time to check motors and to support Telstar and Electrical Design and Motor Control with their preventive maintenance tasks, including but not limited to calibrations of equipment, PLC panel electrical inspection and other pm tasks and repairs.

Bubbler Inspection and Maintenance: 50.5 hours planned MCE time to perform preventive maintenance tasks, including but not limited to monthly regulator adjustments, monthly compressor maintenance, monthly line purging and other pm tasks and repairs.

Trash Rack Inspection and Maintenance: 77.5 hours planned MCE time to perform quarterly preventive maintenance tasks, including but not limited to cleaning, check for proper operation, lube motor on automatic trash rack and other pm tasks and repairs.

Slide Gate Inspection and Maintenance: 56 hours planned MCE time to perform quarterly preventive maintenance tasks, including but not limited to check for proper operation, lube shafts and motors (where applicable) and other pm tasks and repairs.

Routine Station Cleaning and Inspection: 156 hours planned MCE time to do a monthly check of general grounds and building cleanliness, minor repairs to grounds and building and other pm tasks and repairs.

Storm Inspection: 180 hours planned MCE time to check for proper operation of stations prior to and during storms.

After Hours Response: 96 hours planned MCE time to respond to any alarms or other issues after regular hours.

Area Manager Support: 206 hours planned MCE time to provide technical and maintenance support to the Maintenance Foreman and the project.

Assessment of Condition- MCE will conduct assessment of station beginning with the very first day of the contract. This assessment is to determine priorities of needed repairs to make stations and functional as possible.

Response to Alarms- MCE will provide a two to three-person response team to alarms. Not all alarms require a field response. Those that do, will be responded to within 1 hour. Those that don't require a field response will have a half hour charge.

Work Programs, Schedules and Preventive Maintenance

Due to the limitation of 5 double sided pages for certain sections, MCE was unable to provide as much information in the remaining as we would have liked. MCE has provided on the following pages and in our cost proposal, the following:

Work Program

Located in the cost proposal envelope, MCE's approach is to tie inventory, levels of service by activity and by location into specific estimated costs for each location. This T&M approach is an NTE (not to exceed) amount without the prior approval of the City of Rancho Cordova. This is effective by controlling costs for the City through the NTE while providing compensation to the contractor for work performed. This is similar to the current two contracts MCE has with the City.

Preventive Maintenance Program

On the following pages is an example of MCE's Preventive Maintenance (PM) Program. This example is the Annual Motor PM for Bear Hollow. It covers items that need to be looked at and a corresponding condition code. These PM's will be submitted weekly to the City for review. Other PM's include annual wet well, annual submersible pump, monthly and annual pumps, monthly motor, annual building and grounds, quarterly trash rack, monthly electrical, monthly generator, annual crane, annual slide gate and monthly bubbler. As noted earlier, MCE is moving towards a cloud based PM program using the Salesforce platform. Salesforce is a partner with MCE on our time entry and invoicing systems.

Annual Calendar

MCE will provide an annual calendar, by specific month, with the planned work for each month. The space limitation prevented MCE from providing this schedule. This is essential in running an effective operations and maintenance program for pump stations. From this monthly calendar, MCE will provide, each Friday, an updated schedule for the following week. In addition, a station log will be kept that will detail any visit or work done at each station.

Station Log

If granted an interview, MCE will bring an example of a station log for each station. These logs are essential in tracking work performed

Emergency Plan and Storm Patrol Prep

MCE will also bring examples of already developed emergency plans and storm patrol preparation plans for this project.

Activity No: D1-81A
Title: Motor Inspection
Frequency: Annual

Preventative Maintenance
Master Task List

Employee:
Location: D44 Bear Hollow
Loc. Code:
Date:

Equipment Classification: **Motor Annual Maintenance**

	Tasks	Condition Code	Remarks	Operational (Yes / No)
1	Drain and refill upper and lower bearing oil.			
2	Run each motor and check for proper operation.			
3	Check upper and lower bearing oil levels. Check for oil leaks.			
4	Check operation of solenoid valves and adjust oil drippers as needed.			
5	Check pump and motor operation for excessive vibration, noise, and overheating.			
6	Check oil reservoir level for oil dripper, add as needed.			
7	Inspect mounting bolts for secureness and tighten.			
8	Clean exterior of pump, motor, and surrounding area. Remove any bee nests found on motors.			
9	Sign and date station log book and write down reason for site visit.			
10	Fill out maintenance checklist and report deficiencies.			

Inventory Qty: 4
Measurement Unit: Each
Quantity Checked:
Productivity Standard:
Hours:

Condition Codes:
OK - Item Functioning Properly
NR - Needs Repair
RP - Repaired at P.M. Service
OS - Out of Service

References and Personnel Experience

References

The following references demonstrate our ability to provide the services requested by the City of Rancho Cordova.

Contract Agency: City of Elk Grove

Contract Title: Public Infrastructure Maintenance

Project Manager: Sean Gallagher
Director of Operations and Maintenance
10250 Iron Rock Way, Elk Grove, CA 95624
(209) 608-3114
sgallagher@elkgrovecity.org

Contract Period: 2018 - Present

Contract Scope: Public works maintenance with a heavy focus on Streets and Drainage maintenance.

Contract Amount FY 22-23 is estimated at $2,750,000

Contract Agency: City of Rancho Cordova

Contract Title: Public Works Maintenance Services

Project Manager: Steve Harriman
Operations and Maintenance Manager
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, California 95670
(916) 851-8716
Email ~ sharriman@cityofranchocordova.org

Contract Period: 2010 to Present.

Contract Scope: Public Works Maintenance including street maintenance functions such as sign work, graffiti removal, vegetation control, litter control, event traffic control and other tasks typically associated with Public Works Maintenance.

Contract Amount: FY 22-23 is estimated at $750,000

Contract Agency: **City of Rancho Cordova**

Contract Title: Stormwater Facility Maintenance Services

Project Manager: Dalia Fadl
Operations and Maintenance Manager
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, California 95670
(916) 851-8718
Email ~ dfadl@cityofranchocordova.org

Contract Period: 2010 to Present.

Contract Scope: Public Works Maintenance including street maintenance functions such as sign work, graffiti removal, vegetation control, litter control, event traffic control and other tasks typically associated with Public Works Maintenance.

Contract Amount: FY 22-23 is estimated at $750,000

Contract Agency: **City of Citrus Heights**

Contract Title: Vegeation Mangement Services for Channels and Open Space

Project Manager: Regina Cave
General Services Director
City of Citrus Heights
6360 Fountain Square Drive
Citrus Heights, California
(916) 727-4736
Email ~ rcave@citrusheights.net

Contract Period: 2015 to Present.

Contract Scope: Drainage and vegetation maintenance of creeks, channels and open spaces. Provide street maintenance support and 24 hour emergency callouts.

Contract Amount: FY 22-23 is estimated at $600,000

Personnel Experience

Jeff Core President and CEO **15 Year Employee**

Role in Project: Corporate Oversight and Quality Assurance

Education: Bachelor of Science: Business Administration – Accountancy

California State University Sacramento 1997

President and CEO- MCE: Mr. Core has served in this capacity since 2012. His role includes managing the strategic objectives for the corporation, overseeing all new contractual obligations, hands-on leadership of all accounting and finance functions and a wide variety of other day to day tasks and duties. He works closely with the executive team to assist them in fulfilling the objectives of the corporation. He remains very active in the field and travels to our Southern California offices frequently where he performs oversight of contract performance and both client and employee out-reach.

Controller - MCE: Mr. Core was hired in 2009 to fill the Controller position. Tasks included management of the accounting and finance functions, oversight of our insurance, bond and financial relationships, collaboration with project managers for job accounting and various other day to day tasks and duties.

CFO/Vice President of Finance – Lead the accounting departments of The Wiseman Company (2000 – 2005) a commercial real developer and Private Island Homes (2005 – 2008) a startup residential home builder/land developer.

Senior Assurance – KPMG: Performed and supervised financial statement audits in a wide variety of industries from 1997 – 2000.

Senior Airman – United States Air Force: Served from 1988 – 1995 as a Russian Cryptologic Linguist and Facilities Manager. Stationed at the Presidio of Monterey, Misawa AB, Japan and Goodfellow AFB.

Steve Loweree Vice-President **37 Year Employee**

Role in Project: Principal in Charge and Project Support

Vice President- MCE: Mr. Loweree has been providing overall supervision of all maintenance management contracts and the division since 1996. Duties include meeting with clients to review work

programs, budgets, and schedules of work. In this capacity he has developed bid specifications, bid various subcontract services, hired dedicated in-house staff, developed annual work programs and budgets, worked with City staff to develop system protocols for service requests, emergency call out procedures, and emergency response manuals, in addition to, performing various other start up activities.

Maintenance Superintendent - MCE: Assigned for nine years to this position in the City of Dublin. Developed and implemented work programs and budgets for two new departments (Park and Buildings), as well as an existing department (Streets). Supervised the work performed by in-house crews, as well as all subcontract work and the negotiation of subcontract prices and specifications.

Landscape Foreman-MCE: Landscape Foreman for municipal landscape planting and irrigation projects for two years.

Landscape Foreman-Philips Landscaping: Seven years with Phillips Landscaping in Hudson, Ohio, after starting as a laborer. Responsible for both construction and maintenance accounts, including crew supervision, scheduling, and customer service.

Vince Cudia	**Area Manager**	**18 Year Employee**
Project Responsibilities:	Mr. Cudia will be the Drainage Supervisor, responsible for all drainage maintenance and operations for the City of Rancho Cordova.	
Certifications:	Work Zone and Traffic Control Safety- IMSA Level 1 Signs and Markings- IMSA Grade 1 Water Treatment Operator Certificate- Inactive Flagging and Traffic Management Certificate Basic Water First Responder Sandbagging & Flood Fighting Modicon PLC Level 1 Programming OSHA 10 Safety Training Backhoe, Loader, Tractor Safety Training	

Specific Experience:

Area Manager- MCE: Since 2015, Mr. Cudia provides local oversight, technical support, training and general project management as MCE's Project Manager and then Area Manager (2018) for the Sacramento Region. In this role, Mr. Cudia is the primary management representative for the MCE contracts in the cities of Rancho Cordova, Citrus Heights and Elk Grove.

Quality Assurance Inspector- MCE: From 2013 to 2015, Mr. Cudia provided quality assurance inspections in landscape and park maintenance for all of MCE's municipal clients. Additionally, Mr. Cudia provide training to crews on many tasks and reviews daily project reports with all MCE Supervisors.

Maintenance Manager- Willdan Engineering: From November 2011 to October 2013, Mr. Cudia provided overall maintenance management of Willdan's maintenance contract for the City of Elk Grove.

Maintenance Superintendent – MCE: From 2003 to 2011, Mr. Cudia was part of MCE's maintenance operations in the City of Elk Grove. Starting as a Drainage Foreman, Mr. Cudia spent the last 4 years as Maintenance Superintendent. He oversaw all operations related to a contract that ranged from $1,500,000 to $3,000,000 annually. Areas of

maintenance included landscape, street and drainage. Drainage operation and maintenance included 6 storm drain pump stations, over 67 miles of creeks and channels, roadside ditches and the complete underground storm drain system.

Assistant Mechanical Maintenance Technician- Current operator: From 2001 to 2003, Mr. Cudia performed operation and maintenance tasks at storm drain and sewer pump stations and water wells. Mr. Cudia is very knowledgeable of portable pumps, electronic slide gates, submersible pumps and much more.

Anthony Strasburg **Foreman** **7 Year Employee**

Project Responsibilities: Mr. Strasburg is MCE's Drainage Foreman, responsible for all aspects of drainage operations and maintenance for the City of Rancho Cordova. If awarded, Mr. Strasburg will also be responsible for pump stations maintenance and operations.

Certifications:
Work Zone and Traffic Control Safety- ATSSA
OSHA 10 & 30 Safety Training
Backhoe and Excavator Certified

Specific Experience:

Drainage Foreman- MCE Corporation: From 2015 to present, Mr. Strasburg has been the Maintenance Foreman for MCE's drainage and vegetation project with the City of Rancho Cordova. His duties include repairs to drainage facilities, excavation of channel, mowing of vegetation and other related tasks.

Lead Maintenance Worker- Cordova Recreation and Parks District: From 2007 to 2015, responsible for irrigation repairs including valves, piping and mowing operations with heavy machinery. Lead maintenance worker, oversaw other park responsibilities and supervision crews.

SECTION 4 (Required Submittal Forms)

PROPOSAL SUBMITTAL CHECKLIST

Each submitted proposal shall include a completed (and signed where required) copy of each of the following checklist items. Any submitted proposal that fails to include any of the following may be deemed inadequate by the City of Rancho Cordova, and may be grounds for dismissal of submittal at the City's sole discretion.

In addition to each item below, please include this page as a cover sheet. Please provide the below items in the same order as presented here.

- ✓ Proposal Submittal Checklist
- ✓ Cover Letter
- ✓ Scope of Services Understanding
- ✓ Project Team Information
- ✓ Project Work Plan
- ✓ Cost Proposal (sealed)
- ✓ Designation of Subconsultants
- ✓ Exceptions to Agreement

DESIGNATION OF SUBCONSULTANTS *(Required submittal form)*

In compliance with the provisions of Section 4100-4114 of the Public Contracts Code of the State of California, and any amendments thereof, each proposer shall set forth below the name and location of the place of business of each subconsultant who will perform work or labor or render service to the Consultant in or about the Services to be performed under these specifications in excess of one-half of one percent (0.5%) of the prime Consultant's total bid or ten thousand dollars ($10,000.00), whichever is greater. The prime Consultant shall list the portion of the work which will be done by such Subconsultant.

If the Consultant fails to specify a subconsultant for any portion of the work to be performed under the Contract, the Consultant shall be deemed to have agreed to perform such portion itself, and the Consultant shall not be permitted to subcontract that portion of the work except under the conditions allowed by applicable law. Subconsultants shall provide all required licensing documentation.

SUBCONSULTANT (Name & Location)	% OF WORK	ESTIMATED ANNUAL DOLLAR AMOUNT	WORK TO BE PERFORMED BY SUBCONSULTANT
HOLT OF CA, WEST SACRAMENTO	4.6%	$6,000	Generator
ODELL'S PUMP/MOTOR, Sacramento	21.6%	~~$12,500~~ ~~$2,000~~	Pump & Motor
Crane Tech, Stockton	0.9%	$1200	Crane
ELECTRICAL DESIGN & MOTOR CONTROL, Roseville	2.7%	$3500	SCADA & electrical controls
~~TELSTAR~~ TELSTAR ~~[illegible]~~ Sacramento	2.7%	$3500	" " "

28,000

Date: 9/29/2022

Name: Steve Lawrence

Title: Vice President

Signature: Steven Lawrence

EXCEPTIONS TO AGREEMENT *(Required submittal form)*

Proposers are to prepare all forms and the cost proposal based on the program specifications set forth in the RFP documents without considering any exceptions that may be set forth on this form. In the event the proposer takes exception to the RFP specifications they may set forth those exceptions in the following manner:

- The exceptions are to be presented on a separate paper titled, "Form Exceptions to Agreement".
- Each exception must be presented separately by stating: the specific exception, the page and line numbers of the exception, the suggested changes to the program related to the exception, the suggested changes in the Agreement language related to the exception, the manner in which the proposed change would benefit the City, the customers or both, and the specific dollar change in each of the various service rates, as proposed by the proposer in this RFP, that would take place if the exception was accepted by the City.
- The exceptions must be followed with the following language without exception.
- **"Except as set forth above, proposer is in complete agreement with the proposed terms, conditions and business arrangements described in the RFP including the attached Agreement. The proposer assumes the risk of all conditions foreseen or unforeseen and agrees to provide the services set forth in the Agreement under whatever circumstances may develop other than as herein provided."**
- The form must be signed by an individual authorized to commit the proposer's firm to the Agreement in the manner set forth below.

Date: 9/29/2002

Name: Steve Lawrence

Title: Vice President

Signature: Steven Lawrence

Please note that if exceptions are taken, all required information as set forth above must be submitted. Exceptions taken without providing the required information will not be considered.

EXHIBIT B

COMPENSATION SCHEDULE

www.mce-corp.com
Employee Owned/Service Driven

City of Rancho Cordova
Pump Station Maint. Services
Labor and Equipment Rates
December 1, 2022 to November 30, 2023

Labor Classification	REGULAR TIME	OVERTIME	SUNDAY & HOLIDAY
Area Manager	$90.00	$135.00	$182.25
Foreman	$58.05	$87.08	$117.55
Laborer 1	$44.00	$66.00	$89.10
Laborer 2	$40.00	$60.00	$81.00
After-Hours Response (2 Hour Minimum)		$108.30	$146.21
Prevailing Wage			
Construction Laborer	$96.84	$122.99	$150.04
Sign Work	$92.50	$117.48	$143.32
Painter Brush	$89.00	$113.03	$137.90
Truck Driver	$101.25	$128.59	$156.88
Operating Engineer	$122.50	$155.58	$189.80
Plumber	$124.87	$158.58	$193.47
Electrical	$114.00	$144.78	$176.63

Equipment	
Utility Truck	$12.10
Standard Pickup Truck	$10.00
High Weed Mower	$8.00
Trailer	$3.00
Weed Eater	$2.00
Blower	$2.00
Chainsaw	$2.00

Materials - Cost Plus 8%
Sub-Contract - Cost Plus 15%

MEMORANDUM

ITEM 10.1.

DATE: November 21, 2022

TO: Honorable Mayor and Council Members

FROM: Elizabeth Sparkman, Community Development Director

SUBJECT: **SUNCREEK FEE PROGRAM ORDINANCE AMENDMENT AND APPROVAL OF TEMPLATE CREDIT/REIMBURSEMENT AGREEMENTS**

RECOMMENDATION

Waive the first reading and introduce the Ordinance and adopt the Resolution.

RESULT OF RECOMMENDED ACTION

The Ordinance Amendment would provide additional clarification to certain provisions related to collection of certain fees and adoption of the Resolution would approve template credit/reimbursement agreements related to the collection of certain Suncreek Specific Plan Fees (SCSP Fees).

BACKGROUND

On May 16, 2022, the City Council adopted a Fee Resolution and Nexus Study that implemented the Suncreek Specific Plan Development Impact Fee Program (SCSP Fee Program). Adopted on June 6, 2022, Ordinance No. 9-2022, the governing Ordinance for the SCSP Fee Program contains provisions for the payment and collection of various SCSP Fees, to fund certain On-site Roadways, Off-Site Roadways, Potable Water, Storm Drainage, Wetland Mitigation for Backbone Infrastructure, Park Corridors and Trails, Wetland Preserve Buffer, and Park Development facilities ("Facilities'), and Plan Area Formation fees to cover certain formation costs incurred by Suncreek owners. The SCSP Fee Program and Ordinance contain provisions for credit and/or reimbursement for construction of Facilities, and costs associated with Plan Area Formation, or portions thereof, in lieu of the payment of the related SCSP Fees.

The Resolution, Attachment 1, approves a template to be used for the SRSP Fee Program credit and/or reimbursement for the construction of Facilities funded by the SCSP Fee Program, attachment 2 and Exhibit A to the Resolution, and a template credit and/or reimbursement of plan area formation costs paid by various Suncreek owners, Attachment 3 and Exhibit B to the Resolution. Prior to any credit for fees or reimbursements from the SCSP Fee Program under the terms of the governing Ordinance, an agreement based on either of the attached corresponding templates will need to be entered into.

The Ordinance Amendment, Attachment 4, provides clarification about collection of and administration of certain development impact fees in the SunCreek Specific Plan Area.

FISCAL IMPACT AND FUNDING SOURCE

There is no Fiscal Impact.

ATTACHMENT(S)

1. Resolution
2. Exhibit A to the Resolution - SCSP Credit Agreement
3. Exhibit B to the Resolution - SCSP Plan Area Fee Credit Agreement
4. Ordinance

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA,

WHEREAS, on June 6, 2022, the City Council adopted Ordinance No. 9-2022 ("Ordinance") adding Chapter 16.82 to the Rancho Cordova Municipal Code related to establishment of development impact fees to finance the cost of public facilities within the Suncreek Specific Plan ("SCSP") Area; and

WHEREAS, the Ordinance contains provisions for the establishment of funds for On-Site Roadways, Off-Site Roadways, Potable Water, Storm Drainage, Wetland Mitigation for Backbone Infrastructure, Park Corridors and Trails, Wetland Preserve Buffer, Park Development, Plan Area Formation, and Administration; and

WHEREAS, Section 16.82.180 and 16.82.195 of the Ordinance contain provisions for credit of construction of the On-Site Roadways, Off-Site Roadways, Potable Water, Storm Drainage, Wetland Mitigation for Backbone Infrastructure, Park Corridors and Trails, Wetland Preserve Buffer, Park Development facilities ("Facilities") or Plan Area Formation costs, or portions thereof, as authorized by the Public Works Director or the Community Development Director (collectively "Director") or their designee, in lieu of all, or a portion of the respective development impact fees; and

WHEREAS, Section 16.28.190 of the Ordinance contains provisions for the Director to enter into a reimbursement agreement authorizing construction of the Facilities, or portions thereof, as authorized by the Director, with reimbursement from the corresponding fund when funds are available; and

WHEREAS, the attached draft Credit/Reimbursement Agreement for Privately Constructed Public Facilities included in the Suncreek Specific Plan Development Impact Fee Program ("Agreement") attached as **Exhibit A** is a template prepared to specifically establish the terms and conditions of credit and/or reimbursement for the construction of the Facilities, or portions thereof, pursuant to the policies and procedures of the SCSP Development Impact Fee Program and governing Ordinance; and

WHEREAS, the attached draft Credit/Reimbursement Agreement for Plan Area Formation Fees included in the Suncreek Specific Plan Development Impact Fee Program ("Plan Area Fee Agreement") attached as **Exhibit B** is a template prepared to specifically establish the terms and conditions of credit and/or reimbursement for plan area formation costs paid, or portions thereof, pursuant to the policies and procedures of the SCSP Development Impact Fee Program and governing Ordinance; and

WHEREAS, authorization is now being requested to allow the Director to authorize the construction of facilities and enter into credit and/or reimbursement agreements based on the templates with a similar form and scope, with the Developers of the Suncreek Specific Plan Area.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA:

1. That the Director, or designee, is authorized to authorize the construction of any Facilities, or portions thereof, in lieu of all, or a portion of the respective Development Impact Fees for the reimbursement of such Facility, pursuant to the terms of a credit and/or reimbursement Agreement.
2. That the City Manager, or designee, is authorized to execute said Agreement after revision to its final form, and agreements of a similar form and scope, with the Developers of the Suncreek Specific Plan Area.
3. That the City Manager, or designee, is authorized for and on behalf of the City, to administer the agreement in accordance with the terms and conditions set forth therein.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 21st day of November 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Donald Terry, Mayor

ATTEST:

_____
Stacy Leitner, CMC
City Clerk

CITY OF RANCHO CORDOVA

CREDIT/REIMBURSEMENT AGREEMENT FOR PRIVATELY CONSTRUCTED PUBLIC FACILITIES INCLUDED IN THE SUNCREEK SPECIFIC PLAN DEVELOPMENT IMPACT FEE PROGRAM

This Agreement (the "Agreement") is entered into by and between the **City of Rancho Cordova** (hereinafter "City") and (INSERT NAME OF DEVELOPER), (hereinafter "Developer") as of the _____ day of _____ 2022.

RECITALS

WHEREAS, Developer is developing (insert name of Subdivision or Villages) (the "Projects") including backbone infrastructure that will serve the Projects; and

WHEREAS, Developer is required through conditions of approval adopted with, or the Infrastructure Phasing Plan approved for, the Project to construct or cause to be constructed the facilities and improvements shown on **Figure 1** and described in **Exhibit A** hereto, which are included within the improvement plans titled **(Insert improvement plans)**, approved (insert date), (the "Facilities"); and

WHEREAS, on June 6, 2022, the City Council of Rancho Cordova adopted Ordinance No. 9-2022 which approved the Suncreek Specific Development Impact Fee Program (the "SCSP Fee Program"); implemented development impact fees to pay for a variety of public facilities (the "SCSP Impact Fees"), including the Facilities; and set forth policies associated with fee credits and reimbursements within the Suncreek Specific Plan ("SCSP") area; and

WHEREAS, on November 17, 2022, the City Council of Rancho Cordova approved a template form of this credit/reimbursement agreement, delegated authority to the Community Development Director or the Public Works Director (collectively "Director"), or designee, to authorize the construction of any facilities, or portions thereof in lieu of all, or a portion of the (insert fee type) SunCreek Specific Plan Development Impact Fee, or the reimbursement of such (insert type) facility pursuant to the terms of the credit/reimbursement agreement and further authorized the City Manager, or designee, to execute said agreement;

WHEREAS, City has agreed to allow Developer to execute an agreement to design and construct the Facilities; and

WHEREAS, City and Developer desire to enter into an agreement to provide for allowable credits and/or reimbursements by the City to Developer for certain costs of design and construction of the Facilities; and

WHEREAS, City and Developer have agreed to allow apportionment of credits over the real property identified in **Exhibit B** hereto;

NOW, THEREFORE, in consideration of the mutual promises contained herein, City and Developer agree as follows:

Section 1. Construction of Facilities

Developer shall complete construction of the Facilities in accordance with the plans and specifications approved by City staff, in accordance with City improvement standards, approved by another agency and their staff as appropriate, and this Agreement. Developer understands and acknowledges that the terms and conditions contained in any contract that Developer has or may execute with any contractors or material suppliers regarding the construction of the Facilities have no force or effect upon this Agreement.

Section 2. Credit/Reimbursement Amount

The City agrees that upon presentation by Developer of written authorization by Cordova Recreation and Park District or other public agency of construction of certain improvements by Developer, the City shall provide credits and/or reimburse Developer for acquisition and/or installation of those Improvements constructed by the Developer on an amount based on the lesser of:

(a) the actual construction cost of eligible facilities, as determined by the City, in its sole discretion, through its review of the construction contract for the Improvements, plus an allowance for soft costs as determined by the City, or

(b) the allowable costs, based on the cost schedules set forth in the Suncreek Specific Plan Development Impact Program and amendments and updates thereto, listed in Exhibit A (unless this total amount is increased pursuant to an amendment to this Agreement).

Funds will be reimbursed without interest.

Section 3. Credit/Reimbursement Timing

(a) **Credit/Reimbursement Priority**. As set forth in Chapter 16.82.190 of the City of Rancho Cordova Municipal Code, the Director or designee, may authorize the construction of any improvements, or portions thereof, reimbursable from one or more of the funds associated with the SCSP Fee Program (the “Fund(s)”) in lieu of all, or a portion of, the SCSP Impact Fees. If so authorized, the credit toward SCSP Impact Fees shall be equal to the credit allocation as authorized by the Director, or designee, up to a maximum of eighty percent (80%) of the programmed cost of the improvement, as shown on Exhibit A, upon approval of this Agreement. Upon acceptance of the Improvements and after reconciliation of the final Improvement costs, the remaining percentage of the programmed cost of the Improvements as shown in Exhibit A may be issued as a credit balance to the Developer from the

SCSP Fee Program against the SCSP Impact Fees, or may be reimbursed in order of priority as set forth in Section 3(b).

(b) **Reimbursement Priority**. As set forth in Chapter 16.82 190 of the City of Rancho Cordova Municipal Code, developers who have constructed improvements reimbursable from one or more of the funds associated with the SCSP Fee Program (the Fund(s)) shall be reimbursed in the order in which their respective improvements are formally accepted by the City, as the City determines there are adequate monies in the corresponding Fund(s).

(c) **Payment Preconditions**. No payment from the Fund(s) as set forth in Section 3(b) above shall be made unless all of the following conditions, together with any other conditions set forth in this Agreement, have been met to City's satisfaction:

i. City has given final approval to and has formally accepted the Improvements as complete; and

ii. City, in its sole discretion, has determined that there are adequate monies available in the applicable Fund(s) associated with the SCSP Fee Program.

iii. Developer applies for reimbursement pursuant to Chapter 16.82.190 of the City of Rancho Cordova Municipal Code within five (5) years after acceptance of the Improvements.

Section 4. Limitation on Fee Credits

Notwithstanding Section 2 above, for any particular type of facility (i.e., roadway, water, storm drain, wetland mitigation, park corridors and trails, wetland preserve, plan area formation), the amount of fee credits granted to a Developer for that type of facility pursuant to this Agreement shall not exceed the amount of fees due from the Developer for that facility type within the area designated for such fee credits as identified in **Exhibit B** hereto. If the amount of credit from Section 2 for a particular facility type exceeds the fee obligation for the Developer for that facility type, the remaining credits may be assigned to lots within the Specific Plan Boundary as shown in **Exhibit B**.

In addition to the foregoing, no fee credits shall be applied to the Administrative Fee that is part of, and defined within, the SCSP Fee Program. The Administrative Fee shall be due and payable at such time as the Developer, or its successors or assigns, are issued building permits for property identified in Exhibit B hereto.

Nothing in this Agreement shall limit or affect the right of the Developer to request and/or the ability of the City to enter into an acquisition agreement whereby the Facilities are acquired by an applicable Community Facilities District, subject to any necessary approval by Cordova Recreation and Park District or other public agency. Developer’s right to the SCSP fee credits hereunder shall not be affected by any such acquisition.

Section 5. Cost Savings

If the Actual Costs (including soft costs) for the Facilities are less than the Programmed Costs, the City shall take the difference between the Programmed Costs and the Actual Costs and add this amount to the ongoing "Cost Savings Balance" for the SCSP Fee Program. The Cost Savings Balance shall be the cumulative total of cost savings that have been realized for facilities constructed within the SCSP Fee Program, less the amount of such savings that has been applied to offset cost overruns as discussed further in Section 6 below.

Section 6. Adjustment to Programmed Costs

If, when the final reconciliation of construction costs for the Facilities is conducted by the City, the Actual Costs for any of the Facilities exceeds the Programmed Costs for such Facilities, the Director, or designee, may review the Actual Costs and determine if the Programmed Costs that will be credited to the Developer should be increased above the amount shown in Section 2 of this Agreement. Such an adjustment to the Programmed Costs for the Facilities shall occur at the sole discretion of the City.

If the Director concludes that an adjustment to the Programmed Costs for the Facilities is appropriate, the City shall first check the Cost Savings Balance to determine if the current balance is sufficient to offset the cost overrun. If the Cost Savings Balance is greater than or equal to the cost overrun, the City may, at its sole discretion, amend this Agreement and increase the allowable credit amount in Section 2 to the original Programmed Costs plus the cost overrun. At the same time, the City shall decrease the Cost Savings Balance by the amount of the cost overrun.

If the Cost Savings Balance is less than the cost overrun, the City may first subtract any Cost Savings Balance from the cost overrun, leaving a Cost Savings Balance of zero dollars ($0). At the City's sole discretion, any remaining amount of cost overrun may be factored into the next update to the SCSP Fee Program, as discussed further in Section 10 below.

Section 7. Distribution of Fee Credits

Upon execution of this Agreement, the Developer shall receive fee credits equal to eighty percent (80%) of the Programmed Costs for the Facilities. After the Facilities have been accepted by the City pursuant to the requirements set forth in this Agreement, the remaining amount of fee credits shall be granted to Developer. Unless the City adjusts the Programmed Costs of the Facilities pursuant to Section 6 above, such remaining credit shall be equal to the lesser of (i) the Actual Costs of the Facilities less the 80% credit already granted to Developers, or (ii) the remaining twenty percent (20%) of the Programmed Costs.

Notwithstanding the foregoing, if the Developer, through credits taken exhaust the original allocation of eighty percent (80%) of the Programmed Costs prior to the City accepting the Facilities, Developer as well as its successors and assignees shall be required to utilize other SCSP Fee credits and/or pay the SCSP Fee on the remaining building permits issued within the area identified in **Exhibit B** unless the Director authorizes the release of

additional credits as progress payments. Based upon project status and completion goals, the Director may at their sole discretion allow the release of progress payments in the form of additional credits prior to acceptance of the facilities.

If the Developer exhausts the original allocation of eighty percent (80%) of the Programmed Costs prior to the City accepting the facilities, and the Director does not authorize the release of additional credits as progress payment, those fees paid by Developer for building permits issued prior to the acceptance of the facility, shall be reimbursed to Developer by the City and the remaining twenty percent (20%) credit shall proportionally be reduced by the amount reimbursed.

Section 8. Application of Fee Credit

Fee credits provided pursuant to this Agreement shall be applied to the property identified in **Exhibit B** in any manner requested by the Developer. Based on the type of Facilities covered by this Agreement, such fee credits shall only apply to the appropriate fee within the SCSP Fee Program.

Section 9. Transfer of Fee Credits

Fee credits granted to Developer pursuant to this Agreement may be transferred to other owners, builders, or developers anywhere within the specific plan area boundary as shown on Exhibit B. To effect such a transfer, Developer shall submit a completed form to the City in substantially the same format as set forth in **Exhibit C** that will: (i) reference this Agreement; (ii) identify the Developer and assignee if credits are being assigned to a builder or other party; (iii) identify the number of lots against which the credits will be applied; (iv) identify the fee credit balance before and after the transfer; and (v) include a map or other method that is acceptable to the City that identifies the lots or parcels against which the fee credits will be applied. The form must be signed by the Developer and the City, and an executed copy of the form shall be kept on file at the City.

Section 10. SCSP Fee Program Updates

At least once annually, the City shall update the SCSP Fees to ensure that the Programmed Costs of facilities in the SCSP Fee Program are appropriate based on current estimates of land costs and construction costs, as well as Actual Costs that have been incurred for facilities within the SCSP Fee Program that have been constructed in the prior year. In addition to the annual update of the SCSP Fees, the City may initiate additional updates to the SCSP Fee Program in any year to increase the SCSP Fees to cover cost overruns that have been approved by the City to include in such fee updates. If the Director has identified a cost overrun pursuant to Section 6 above, the City may commence an SCSP Fee Program update immediately or within a reasonable time thereafter.

Section 11. Inspection

City shall, at all times, upon reasonable advance notice, have access to the construction site during construction of the Facilities and Developer shall furnish City with all reasonable information necessary for ascertaining full knowledge of the Facilities with respect to the progress, workmanship, and character of materials and equipment used and employed in the work.

Whenever the contractors retained by Developer vary the normal period during which work or any portion of it is carried out on each day, Developer shall give timely notice to the City so that the City's representative may, if he or she wishes, be present to observe the work in progress. If Developer fails to give such timely notice, any work done in the absence of the City's representative will be subject to rejection. Developer shall give timely notice to the City in advance of backfilling or otherwise covering any part of the work so that the City's representative may, if he or she wishes, observe the work before it is concealed.

Observation of the work by the City shall not relieve Developer of any of their obligation to complete construction in accordance with the plans and specifications approved by the Director, or designee.

Section 12. Prevailing Wages

Pursuant to the provisions of Articles 1 and 2 of Chapter 1, Part 7, Division II of the Labor Code of the State of California, not less than the general prevailing rate of per diem wages, and not less than the general prevailing rate of per diem wages for holidays and overtime work, for each craft, classification or type of worker needed to execute the work contemplated under this Agreement shall be paid to all workers, laborers, and mechanics employed in the execution of said work by Developer's contractor, or by any subcontractor doing or contracting to do any part of said work.

Developer shall require its contractor to post, at each jobsite, a copy of such prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations (DIR). Prior to execution of this Agreement, Developer shall provide evidence that the contract for construction of the Faclities has been registered with the DIR.

Section 13. Insurance

Developer shall require its contractor to carry and maintain during the life of this Agreement, such public liability, property damage and contractual liability, auto, Workers' Compensation and Builders' Risk Insurance as required by the improvement plan specifications for the Facilities. The contractor shall name the City as an additional insured.

Section 14. Acceptance and Conveyance of Facilities

Once Developer has completed construction of the Facilities and the Facilities are accepted and deemed satisfactory by the City, the Facilities automatically become the property of the City, or other Agency as appropriate. Developer shall take any and all

actions necessary to convey and vest full, complete and clear title in said Facilities to the City, or other Agency as appropriate.

Section 15. Liens, Claims, and Encumbrances

Developer shall provide a written guarantee and assurance to the City that there are no liens, claims, or encumbrances on the Facilities prior to granting of final fee credits by the City, together with unconditional final releases from all contractors and material suppliers, and with copies of invoices and corresponding Developer checks issued for all items for which credit is required under this Agreement. Notwithstanding any other provision or term of this Agreement, the City shall have no obligation to apply credits after final acceptances for the Facilities until Developers have cleared any and all liens, claims and encumbrances from said facility, and provided the required guarantee documentation, guarantee, and assurance in writing.

Section 16. Delivery of As-Built Plans and Specifications

Prior to acceptance of the Facilities by City, Developer shall deliver to City electronic copies of all as-built plans, specifications, operating manuals, service manuals, warranties and other documents relating to the design, construction, and operation of the Facilities described in this Agreement.

Section 17. Indemnification

The Developer, by execution of this Agreement, specifically agrees to assume the defense of, indemnify and hold harmless City and its elected representatives, officers, employees, agents and consultants (the **"Indemnitees"**), from and against all liabilities, actions, damages, claims, losses, or expenses of every type and description, including attorneys' and consultants' fees and expenses, (collectively, **"Liabilities"**), to which they may be subjected or put, by reason of or resulting from the design, construction, or installation of the Facilities, except to the extent the Liabilities arise from the sole negligence, active negligence, or willful misconduct of City and/or the Indemnitees. This indemnification shall extend to Liabilities occurring after this Agreement is terminated as well as while it is in force. Notwithstanding the foregoing, following the acceptance of the improvements by City, or if there is an applicable warranty, following the end of any applicable warranty period, the Developer shall not be obligated to indemnify the Indemnitees for Liabilities to the extent that such Liabilities arise from Indemnitees' active or passive negligence.

Section 18. Third Party Liability

City does not assume any liability, duty or obligation to Developer's contractors, subcontractors or agents by execution or performance of this Agreement and no contractors, subcontractors, agents or any parties are third party beneficiaries of this Agreement.

Section 19. Warranty

Developer hereby warrants the Facilities as to materials, design and workmanship and should any failure of the Facilities or any parts thereof occur within a period of one (1) year after final acceptance by City, Developer shall promptly cause the needed repairs to be made without any expense or cost to the City. Final acceptance shall be deemed to have occurred under this Agreement when the Facilities have been accepted by the City and may be placed into service. City shall provide written notification to Developer of final acceptance by the City.

City is hereby authorized to make repairs if Developer fails to make, or undertake with due diligence, the aforesaid repairs within twenty (20) days after it is given written notice of such failure. In case of emergency, where in the opinion of the Director delay may cause serious hazard to the public, the necessary repairs may be made by the City without prior notice to Developer. In all cases of failure within the warranty period where the City has taken action in accordance with this paragraph, Developer shall reimburse City for any and all costs or expenses, direct or indirect, incurred by the City.

Section 20. Binding on Successors and Assigns

Each and every provision of this Agreement shall be binding upon and shall inure to the benefit of the respective successors and assigns of the parties hereto, in the same manner as if such parties had been expressly named herein.

Section 21. Attorney's Fees

If any suit, action or proceeding in law or equity is brought to enforce the provisions of this Agreement, the prevailing party shall be entitled to reasonable costs and attorneys' fees.

Section 22. Authority to Enter Into Agreement

Developer and City certify that they are legally empowered to enter into this Agreement.

Section 23. Notices

Any notices, requests, demands or other communications required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given on the date of service if served personally (FedEx and similar services, each of which is hereinafter called an "Express Courier," shall be considered to be personal service) or by telephone facsimile or other electronic transmission (provided that the sender of a telephone facsimile or other electronic transmission has received confirmation of successful transmission by the sending fax machine), and upon receipt, if mailed to the party to whom notice is to be given, by first-class mail, registered or certified, postage prepaid, return receipt requested, and properly addressed as follows:

If to City:

City of Rancho Cordova
Attn: Community Development Director

2729 Prospect Park Drive
Rancho Cordova, CA 95670
Telephone: (916) 851-8700
Facsimile: (916) 851-8787

If to Developer:

Developer
c/o Developer's Representative
1234 Main Street, Suite 100
City of Rancho Cordova, CA 95670
Telephone: (916) Insert Phone #
Facsimile: (916) Insert Fax#

Either party may change its mailing address at any time by giving written notice of such changes to the other party in the manner provided herein.

Section 24. Notice of Contractors

Developer shall provide a copy of this Agreement to any contractors, subcontractors, or other parties performing work on the Facilities, prior to commencement of construction by said party.

Section 25. Term

The term of this Agreement shall start on the day and year duly executed by all parties and shall remain in effect until all the terms and conditions contained in this Agreement have been satisfied.

Section 26. Severability

If any provision of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining portions hereof shall not in any way be affected or impaired thereby.

Section 27. Conflicts

This agreement is intended to implement and be consistent with the requirements of Ordinance No. 9-2022. The Ordinance provides that by entering into the agreement, a property owner is not relieved of the obligation to pay the Development Fees in the manner and amount specified in the Ordinance. Therefore, in the event of any conflicts between Ordinance 9-2022 and this Agreement, the requirments of the Ordinance shall prevail and control.

Section 28. Exhibits

The Exhibits attached hereto are hereby incorporated herein by this reference.

Section 29. Entire Agreement

This Agreement constitutes the entire understanding of the parties regarding the subject matter hereof. The Agreement may be amended only by writing executed by both parties.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first above-written.

CITY OF RANCHO CORDOVA,
a municipal corporation

By:_____
Insert Name
City Manager

Dated: _____

DEVELOPER CORPORATION
a California Corporation

By_____
Insert Name
Insert Title

Dated: _____

ATTEST:

_____
Insert Name, City Clerk

Dated: _____

APPROVED AS TO FORM:

_____
Insert Name
City Attorney

Dated: _____

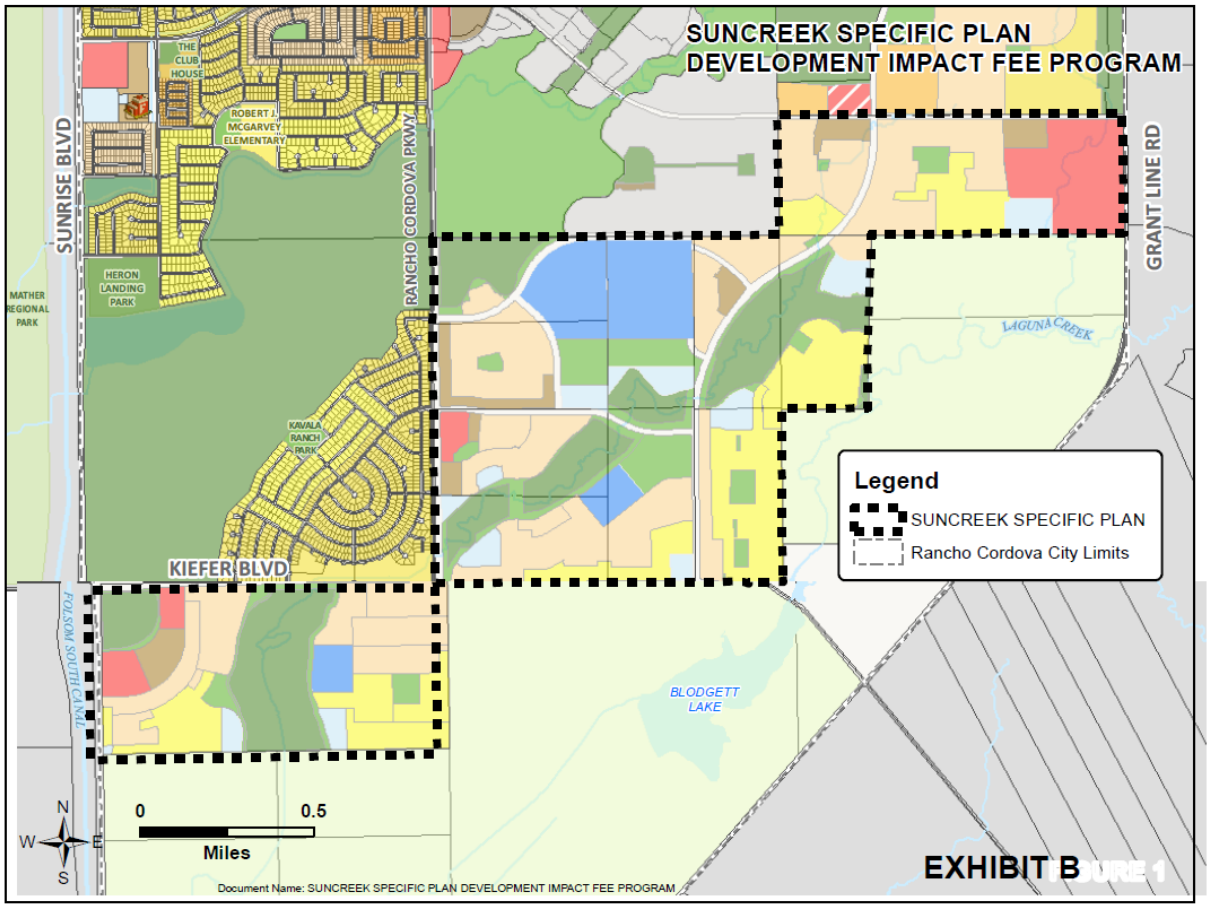
Figure 1

(INSERT GRAPHIC OF IMPROVEMENT PLAN SHEET)

EXHIBIT A

(INSERT TABLE OF CREDITABLE/REIMBURSABLE ITEMS)

EXHIBIT B


SUNCREEK SPECIFIC PLAN
DEVELOPMENT IMPACT FEE PROGRAM
SUNRISE BLVD
RANCHO CORDOVA PKWY
GRANT LINE RD
THE CLUB HOUSE
ROBERT J MCGARVEY ELEMENTARY
HERON LANDING PARK
MATHER REGIONAL PARK
KAVALA RANCH PARK
KIEFER BLVD
LAGUNA CREEK
BLODGETT LAKE
FOLSOM SOUTH CANAL
Legend
SUNCREEK SPECIFIC PLAN
Rancho Cordova City Limits
N
W
E
S
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Miles
Document Name: SUNCREEK SPECIFIC PLAN DEVELOPMENT IMPACT FEE PROGRAM
EXHIBIT B

For Official Use Only:

Case #_____ Lot #_____
Fund: _____ Credit Amount/Lot $ _____

EXHIBIT C
SUNCREEK SPECIFIC PLAN
ASSIGNMENT AND TRANSFER OF
(insert type) DEVELOPMENT IMPACT FEE CREDIT CERTIFICATE

The undersigned Developer as the holder of certain (insert type) development impact fee credits related to the agreement referenced herein, hereby assigns, transfers and conveys to the undersigned Assignee a credit amount for certain property as indicated below:

Developer's Legal Name: **DEVELOPER CORPORATION**

Reference Credit/Reimbursement Agreement: **"Credit Agreement with (insert Developer Name) for Construction of (Insert), Contract No. 2022-XXX"**

Reference Contract No. 2022-XXX Transfer No. _____

Assignee's Legal Name: _____

Assignee's Name of Subdivision or Development Project: _____

Number of lots assigned credits (Attach a list of lots and copy of final map): __ **lots**

Final Map Name: _____

Final Map Lot #: _____

Agreement Amount Balance before Transfer: _____

Total dollar amount of fee credit transfer: _____

Available Reimbursement Agreement Balance after transfer: _____

==========

For Public Works Department Use Only:

Lot #_____	Case #_____	Lot #_____	Case #_____
Lot #_____	Case #_____	Lot #_____	Case #_____
Lot #_____	Case #_____	Lot #_____	Case #_____
Lot #_____	Case #_____	Lot #_____	Case #_____
Lot #_____	Case #_____	Lot #_____	Case #_____

==========

DEVELOPER
By: _____
Name:
Title:
Date:
Phone:
E-mail:

CITY Concurrence
By: _____
Name: _____
Title: _____
Date: _____

HOME BUILDER
Phone: _____
E-mail:_____

Please Submit THE ORIGINAL ONLY to the City of Rancho Cordova, Department of Public Works

5232932.1

CITY OF RANCHO CORDOVA

CREDIT/REIMBURSEMENT AGREEMENT FOR PLAN AREA FORMATION FEES INCLUDED IN THE SUNCREEK SPECIFIC PLAN DEVELOPMENT IMPACT FEE PROGRAM

This Agreement (the "Agreement") is entered into by and between the **City of Rancho Cordova** (hereinafter "City") and **(INSERT NAME OF DEVELOPER)**, (hereinafter "Developer") as of the _____ day of _____ 2022.

RECITALS

WHEREAS, Developer is developing (insert name of Subdivision or Villages) (the "Projects") and is seeking small lot final map approvals; and

WHEREAS, on June 6, 2022, the City Council of Rancho Cordova adopted Ordinance No. 9-2022 which approved the Suncreek Specific Development Impact Fee Program (the "SCSP Fee Program"); implemented development impact fees to pay for a variety of public facilities (the "SCSP Impact Fees"), including the Facilities; and set forth policies associated with fee credits and reimbursements within the Suncreek Specific Plan ("SCSP") area; and

WHEREAS, in the time since approval of the SunCreek Specific Plan in 2013, the original Suncreek owners have shared and incurred significant costs to prepare various studies, reports, plan area amendments, environmental and technical studies which allowed implementation of the SCSP Fee Program; and

WHEREAS, in order to equitably recover plan area formation costs paid by the various Suncreek owners, each Developer is required by the SCSP Fee Program and Ordinance No.9-2022 to pay a SCSP Plan Area Formation Fee prior to approval of their respective small lot final map; and

WHEREAS, on November 17, 2022, the City Council of Rancho Cordova approved a template form of this credit/reimbursement agreement, delegated authority to the Community Development Director, or designee, to authorize the credit of costs associated with plan area formation costs, or portions thereof in lieu of all, or a portion of the Plan Area Formation Fee, or the reimbursement of such plan area formation costs pursuant to the terms of the credit/reimbursement agreement and further authorized the City Manager, or designee, to execute said agreement; and

WHEREAS, City has agreed to allow Developer to proceed with approval of small lot final maps for the Project; and

WHEREAS, City and Developer desire to enter into an agreement to provide for allowable credits and/or reimbursements by the City to Developer for certain costs funded by Developer association with Plan Area Formation costs as identified in **Exhibit A**; and

WHEREAS, City and Developer have agreed to allow apportionment of credits over the real property identified in **Exhibit B** hereto; and

NOW, THEREFORE, in consideration of the mutual promises contained herein, City and Developer agree as follows:

Section 1. Credit/Reimbursement Amount

The City agrees to provide credits to and/or reimburse Developer the allowable costs, based on the cost schedules set forth in the Suncreek Specific Plan Development Impact Program listed in Exhibit A. Funds will be credited/reimbursed without interest.

Section 2. Credit/Reimbursement Timing

As set forth in Chapter 16.82.130 of the City of Rancho Cordova Municipal Code, the Plan Area Formation Fee shall be paid prior to final map approval. For projects that are subject to building permits, but not subdivision map approval, the fees shall be both calculated and paid upon issuance of the building permit. Depending on the nature of the approval, the plan area formation fee credit will be applied at final map approval or building permit issuance.

Section 3. Limitation on Fee Credits

Notwithstanding Section 1 above, the amount of fee credits due to a Developer for plan area formation costs pursuant to this Agreement shall not exceed the amount of fees due from the Developers for that facility type within the area designated for such fee credits as identified in **Exhibit B** hereto. If the amount of credit from Section 1 for a particular facility type exceeds the plan area fee obligation for the Developer, the remaining credits may be assigned to lots within the Specific Plan Boundary as shown in **Exhibit B**.

Section 4. Distribution of Fee Credits

Upon execution of this Agreement, the Developer shall receive fee credits equal to the Programmed Costs for the Facilities indentified in **Exhibit A**. If the Developer, through credits applied towards their Project, exhausts the full allocation of creduts, Developer as well as its successors and assignees shall be required to utilize other SCSP Plan Area Fee credits and/or pay the SCSP Plan Area Fee on the remaining final maps approved or building permits issued within their Project area identified in **Exhibit B.**

Section 5. Transfer of Fee Credits

Fee credits granted to Developer pursuant to this Agreement may be transferred to other owners, builders, or developers anywhere within the specific plan area boundary as shown on **Exhibit C.** To effect such a transfer, Developer shall submit a completed form to the

City in substantially the same format as set forth in **Exhibit D** that will (i) reference this Agreement; (ii) identify the Developer and assignee if credits are being assigned to a builder or other party; (iii) identify the number of lots or final map area against which the credits will be applied; (iv) identify the fee credit balance before and after the transfer; and (v) include a map or other method that is acceptable to the City that identifies the lots or final map area against which the fee credits will be applied. The form must be signed by the Developer and the City, and an executed copy of the form shall be kept on file at the City.

Section 6. Indemnification

The Developer, by execution of this Agreement, specifically agrees to assume the defense of, indemnify and hold harmless City and its elected representatives, officers, employees, agents and consultants (the **"Indemnitees"**), from and against all liabilities, actions, damages, claims, losses, or expenses of every type and description, including attorneys' and consultants' fees and expenses, (collectively, **"Liabilities"**), to which they may be subjected or put, by reason of or resulting from the design, construction, or installation of the Facilities, except to the extent the Liabilities arise from the sole negligence, active negligence, or willful misconduct of City and/or the Indemnitees. This indemnification shall extend to Liabilities occurring after this Agreement is terminated as well as while it is in force. Notwithstanding the foregoing, following the acceptance of the improvements by City, or if there is an applicable warranty, following the end of any applicable warranty period, the Developer shall not be obligated to indemnify the Indemnitees for Liabilities to the extent that such Liabilities arise from Indemnitees' active or passive negligence.

Section 7. Third Party Liability

City does not assume any liability, duty or obligation to Developer's contractors, subcontractors or agents by execution or performance of this Agreement and no contractors, subcontractors, agents or any parties are third party beneficiaries of this Agreement.

Section 8. Binding on Successors and Assigns

Each and every provision of this Agreement shall be binding upon and shall inure to the benefit of the respective successors and assigns of the parties hereto, in the same manner as if such parties had been expressly named herein.

Section 9. Attorney's Fees

If any suit, action or proceeding in law or equity is brought to enforce the provisions of this Agreement, the prevailing party shall be entitled to reasonable costs and attorneys' fees.

Section 10. Authority to Enter Into Agreement

Developer and City certify that they are legally empowered to enter into this Agreement.

Section 11. Notices

Any notices, requests, demands or other communications required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given on the date of service if served personally (FedEx and similar services, each of which is hereinafter called an "Express Courier," shall be considered to be personal service) or by telephone facsimile or other electronic transmission (provided that the sender of a telephone facsimile or other electronic transmission has received confirmation of successful transmission by the sending fax machine), and upon receipt, if mailed to the party to whom notice is to be given, by first-class mail, registered or certified, postage prepaid, return receipt requested, and properly addressed as follows:

If to City:

City of Rancho Cordova
Attn: Community Development Director
2729 Prospect Park Drive
Rancho Cordova, CA 95670
Telephone: (916) 851-8700
Facsimile: (916) 851-8787

If to Developer:

Developer
c/o Developer's Representative
1234 Main Street, Suite 100
City of Rancho Cordova, CA 95670
Telephone: (916) Insert Phone #
Facsimile: (916) Insert Fax#

Either party may change its mailing address at any time by giving written notice of such changes to the other party in the manner provided herein.

Section 12. Term

The term of this Agreement shall start on the day and year duly executed by all parties and shall remain in effect until all the terms and conditions contained in this Agreement have been satisfied.

Section 13. Severability

If any provision of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining portions hereof shall not in any way be affected or impaired thereby.

Section 14. Conflicts

This agreement is intended to implement and be consistent with the requirements of Ordinance No. 9-2022. The Ordinance provides that by entering into the agreement, a property owner is not relieved of the obligation to pay the Development Fees in the manner and amount specified in the Ordinance. Therefore, in the event of any conflicts between Ordinance 9-2022 and this Agreement, the requirments of the Ordinance shall prevail and control.

Section 15. Exhibits

The Exhibits attached hereto are hereby incorporated herein by this reference.

Section 16. Entire Agreement

This Agreement constitutes the entire understanding of the parties regarding the subject matter hereof. The Agreement may be amended only by writing executed by both parties.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first above-written.

CITY OF RANCHO CORDOVA,
a municipal corporation

By:_____
Insert Name
City Manager

Dated: _____

DEVELOPER CORPORATION
a California Corporation

By_____
Insert Name
Insert Title

Dated: _____

ATTEST:

_____
Insert Name, City Clerk

Dated: _____

APPROVED AS TO FORM:

_____
Insert Name
City Attorney

Dated: _____

EXHIBIT A
SUNCREEK OWNERS GROUP COST ALLOCATIONS

Vendor	Cost Description	Beginning Cash - 2014 (1)	2014	2015	2016	2017	2018	2019	2020	2014-2020 Amount Paid	2021 Costs	Projected 2022 Costs	Total Projected Costs @ 2022
ECORP Consulting	Environmental consulting		125,354.56	41,411.61	89,599.48	102,870.64	143,510.08	58,248.31	20,333.10	581,327.78	3,473.75	-	584,801.53
Mackay & Somps	Engineering services - M & S		27,811.21	36,224.25	21,032.19	11,367.82	29,882.22	126,914.26	70,234.94	323,466.89	59,988.23	30,000.00	413,455.12
Mackay & Somps	Water and Sewer Studies (Level 2)			69,455.36	18,114.08					87,569.44	-	-	87,569.44
Foothill Associates	Engineering services - Foothill				3,328.90					3,328.90			3,328.90
Fehr & Peers	Traffic analysis								4,000.00	4,000.00			4,000.00
AECOM	AQ15 Plan update									-	-	-	-
Watermark Engineering	Drainage master study (Level 2)			64,000.00	14,000.00		20,000.00			98,000.00	-	3,000.00	101,000.00
Balance Hydrologics	Consulting - drainage analysis					1,305.00				1,305.00			1,305.00
Dudek Engineering	SSHCP support engineering services				3,645.00	2,150.00				5,795.00			5,795.00
Economic & Planning System	Finance plan consulting services			9,932.50			2,875.00	920.00	52,729.03	66,456.53	40,040.00	15,000.00	121,496.53
City of Rancho Cordova	Review fees - Fee programs, tech studies, etc.				7,000.00		24,144.77	23,500.00	40,000.00	94,644.77	15,000.00	25,000.00	134,644.77
CRPD	Review fees, Quimby In-Lieu - CRPD								3,101.75	3,101.75		15,000.00	18,101.75
Wade & Associates	Land planning; SP amendment				5,752.50		3,217.50	16,770.00	21,937.50	47,677.50	-	5,000.00	52,677.50
Shattuck Planning	Wetland consulting services						39,000.00	30,000.00		69,000.00	-	-	69,000.00
Landgraf Consulting	Wetland consulting services		25,500.00	36,000.00	36,000.00	36,000.00				133,500.00			133,500.00
Spare Time, Inc.	Administrative management fees		10,000.00	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00	82,000.00	12,000.00	6,000.00	100,000.00
HS& M Attorneys at Law	Legal fees - development/other agreements			8,022.00						8,022.00	1,144.00	-	9,166.00
CVRWQCB	Permit fees - backbone permit		1,201.00			78,694.00			955.00	80,850.00	-	-	80,850.00
Various	Misc costs (postage, copying, etc.)		141.32	79.59	198.91	-	-	-	40.00	459.82	-	8,179.89	8,639.71
Total			190,008.09	277,125.31	210,671.06	244,387.46	274,629.57	268,352.57	225,331.32	1,690,505.38	131,645.98	107,179.89	1,929,331.25
Funding by Owner													
Shalako - SCOG		35,839.90	46,537.91	16,031.35	45,714.00	72,047.78	64,153.00	69,698.00	68,069.00	418,090.94	46,235.00	33,334.00	497,659.94
Shalako - SCTS			-	58,833.34	-	-	11,561.21	-	-	70,394.55	-	-	70,394.55
Investek/Jaeger Ranch		26,883.45	19,048.00	26,736.25	36,786.00	54,037.33	-	-	-	163,491.03	-	-	163,491.03
Callahan/Kamilos - SCOG		17,924.18	22,222.00	9,682.33	22,858.00	29,040.89	6,984.00	-	-	108,711.40	-	-	108,711.40
Callahan/Kamilos - SCTS			-	33,334.33	25,499.00	-	11,500.00	-	-	70,333.33	-	-	70,333.33
Vrame/Smith-Dunmore		8,962.09	-	17,619.33	11,428.00	14,520.45	27,123.00	41,812.00	29,416.00	150,880.87	-	-	150,880.87
Lennar - Sierra Sunrise; Grantline		26,883.45	35,426.92	12,857.33	34,286.00	54,037.33	59,032.00	60,136.00	57,676.00	340,335.03	39,176.00	55,054.00	434,565.03
Grantline - SCOG		24,642.22	30,555.00	12,063.33	31,428.00	39,930.22	63,720.00	56,833.00	55,078.00	314,249.77	37,142.00	11,612.00	363,003.77
Grantline - SCTS		-	-	48,333.33	10,500.00	-	11,458.00	-	-	70,291.33	-	-	70,291.33
Total		141,135.29	153,789.83	235,490.92	218,499.00	263,614.00	255,531.21	228,479.00	210,239.00	1,706,778.25	122,553.00	100,000.00	1,929,331.25

EXHIBIT B
PROJECT AREA BOUNDARY

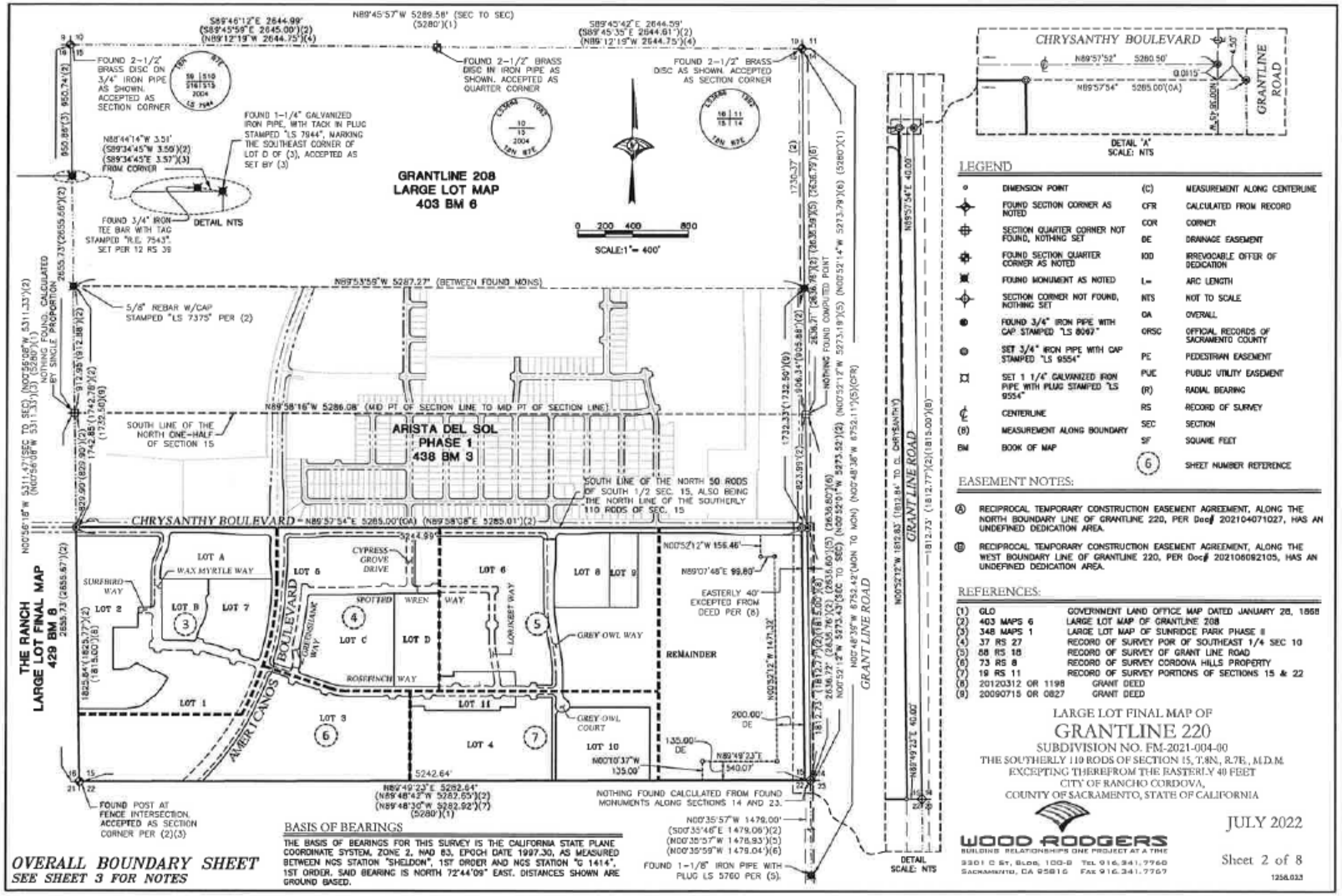
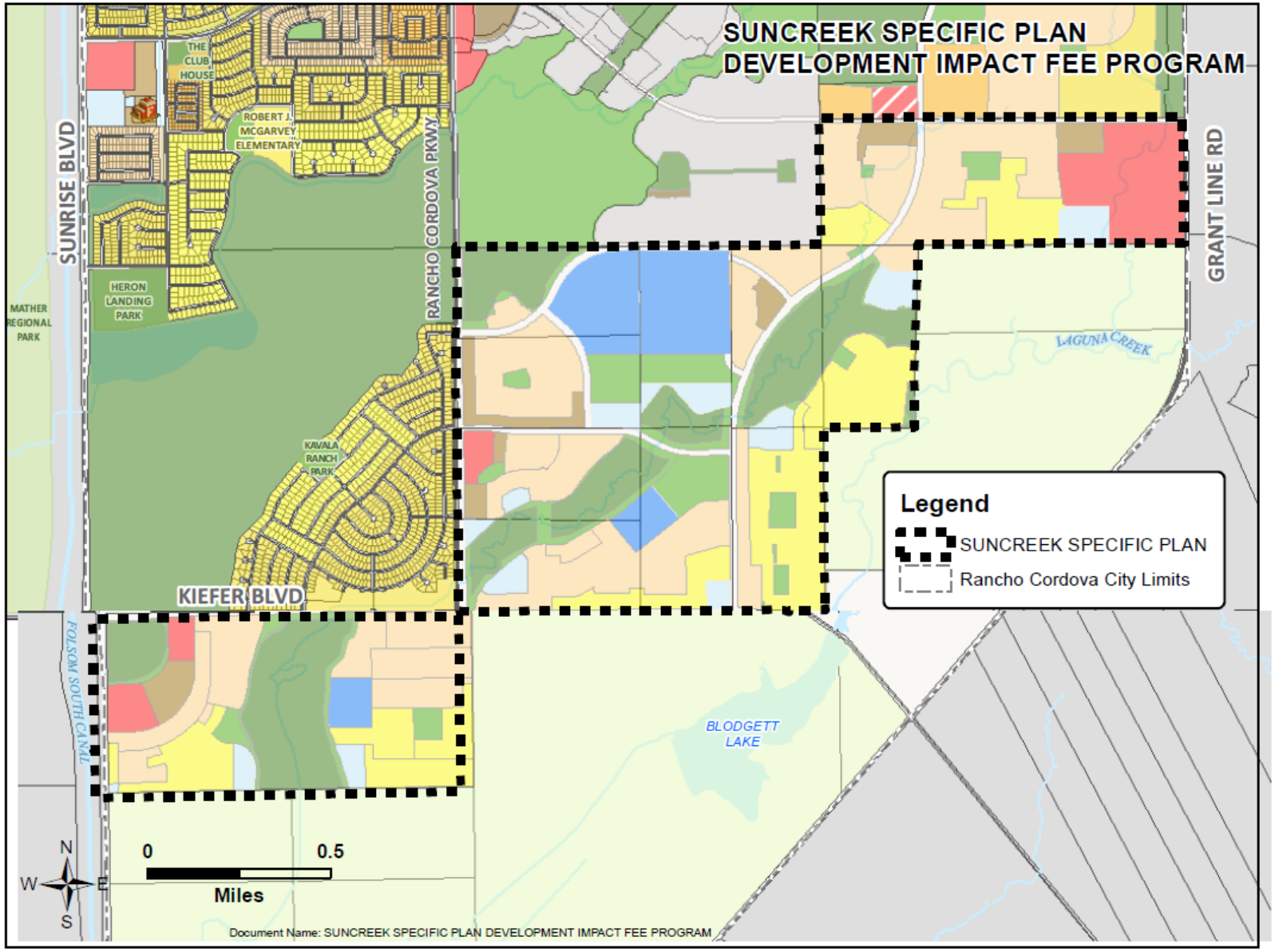


EXHIBIT C
SUNCREEK SPECIFIC PLAN AREA BOUNDARY



For Official Use Only:

Case #_____ Lot #_____
Fund: _____ Credit Amount/Lot $ _____

EXHIBIT D
SUNCREEK SPECIFIC PLAN
ASSIGNMENT AND TRANSFER OF PLAN AREA FORMATION FEE CREDIT CERTIFICATE

The undersigned Developer as the holder of certain (insert type) development impact fee credits related to the agreement referenced herein, hereby assigns, transfers and conveys to the undersigned Assignee a credit amount for certain property as indicated below:

Developer's Legal Name: **DEVELOPER CORPORATION**

Reference Credit/Reimbursement Agreement: **"Credit Agreement with (insert Developer Name) for Plan Area Formation Fees, Contract No. 2022-XXX"**

Reference Contract No. 2022-XXX Transfer No. _____

Assignee's Legal Name: _____

Assignee's Name of Subdivision or Development Project: _____

Number of lots assigned credits (Attach a list of lots and copy of final map): __ **lots**

Final Map Name: _____

Final Map Lot #: _____

Agreement Amount Balance before Transfer: _____

Total dollar amount of fee credit transfer: _____

Available Reimbursement Agreement Balance after transfer: _____

==========

For Public Works Department Use Only:

Lot #_____	Case #_____	Lot #_____	Case #_____
Lot #_____	Case #_____	Lot #_____	Case #_____
Lot #_____	Case #_____	Lot #_____	Case #_____
Lot #_____	Case #_____	Lot #_____	Case #_____
Lot #_____	Case #_____	Lot #_____	Case #_____

==========

DEVELOPER
By: _____
Name:
Title:
Date:
Phone:
E-mail:

CITY Concurrence
By: _____
Name: _____
Title: _____
Date: _____

HOME BUILDER
Phone: _____
E-mail:_____

Please Submit THE ORIGINAL ONLY to the City of Rancho Cordova, Department of Public Works

5232933.1

CITY OF RANCHO CORDOVA

ORDINANCE NO. XX-2022

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA AMENDING CHAPTER 16.82 OF THE RANCHO CORDOVA MUNICIPAL CODE RELATING TO CERTAIN SPECIFIC PLAN DEVELOPMENT IMPACT FEES WITHIN THE SUNCREEK SPECIFIC PLAN AREA

THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA ORDAINS AS FOLLOWS:

SECTION 1. Purpose and Declarations.

WHEREAS, the City of Rancho Cordova ("City") has previously adopted an Ordinance adding Chapter 16.82 to the Rancho Cordova Municipal Code for the establishment of development impact fees to finance the cost of public facilities within the SunCreek Specific Plan Area; and

WHEREAS, the Cordova Recreation and Park District ("CRPD") is the park provider to establish park requirements, parks plans and recreation programs and services within the SunCreek Specific Plan Area; and

WHEREAS, the City desires to amend the Ordinance to clearly identify CRPD as the parks provider within the SunCreek Specific Plan Area.

SECTION 2. Amendment of Code. Section 16.82.115 "Establishment and Administration of the SunCreek Specific Plan Park Development Fund" is hereby amended in its entirety to read:

(a) There is hereby created a special interest-bearing account entitled the SunCreek Specific Plan Park Development Fund. All amounts collected from park development fees from the SunCreek Specific Plan Area pursuant to this chapter or pursuant to a City Development Agreement shall be placed in said fund and shall be reimbursed to CRPD solely to pay the costs for park improvements constructed by CRPD in the SunCreek Specific Plan Area or credited to developers for park improvements authorized by CRPD to be constructed by developer in the SunCreek Specific Plan Area.

(b) The Park Development Fund shall be administrated by the Director, or designee.

SECTION 3. Amendment of Code**.** Chapter 16.82.195 "Credit or Reimbursement for Construction of Park and Recreation Facilities", subsection (a) is hereby amended in its entirety to read:

(a) Upon application by the property owner or his authorized agent, CRPD as the park facilities provider may authorize the construction of any park and recreation facilities, or portions thereof, as designed in the SunCreek Specific Plan Development Impact Fee Program in lieu of all, or a portion of, the park improvement Development Fee required by the City's Development Agreement and this chapter and may enter into a credit agreement pursuant to subsections (b), (c), and (d) of this section or may enter into a reimbursement agreement pursuant to subsections (e), (f), and (g) of this section. If so authorized, the credit to be provided to the property owner shall be equal to the estimated cost of the facility as set forth in a Park Development Agreement with CRPD, or otherwise as authorized by CRPD, in effect at the time when the credit agreement is approved. The construction of any facility authorized by this section must first be approved by CRPD or otherwise authorized by said park facilities provider, prior to credit being given and issuance of any of the approvals set forth in Section 16.82.130.

SECTION 4. CEQA**.** Approval of this Ordinance Amendment is exempt from further environmental review under the general rule in California Environmental Quality Act ("CEQA") Guidelines section 15061(b)(3) that CEQA only applies to projects that have the potential for causing a significant effect on the environment. The proposed Ordinance Amendment is statutorily exempt from CEQA under Pub. Res. Code Section 21080(b)(8)(D) and CEQA Guidelines Section 15273(a)(4) because it involves the establishment of fees for the purpose of obtaining funds for capital projects necessary to maintain services within the SunCreek Specific Plan Area.

SECTION 5. Severability**.** If any provision of this Ordinance or the application thereof to any person or circumstance is held invalid, the remainder of the Ordinance, including the application of such part or provision to other persons or circumstances shall not be affected thereby and shall continue in full force and effect. To this end, provisions of this Ordinance are severable. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, subdivisions, paragraphs, sentences, clauses, or phrases be held unconstitutional, invalid, or unenforceable.

SECTION 6. Effective Date. Within fifteen (15) days after adoption, a Summary of this Ordinance shall be published once in the Grapevine Independent, or the Sacramento Bee, a newspaper of general circulation printed and published in Sacramento County and circulated in the City of Rancho Cordova, in accordance with Government Code section 36933. This Ordinance shall take effect 30 days after its adoption and, pursuant to Government Code section 66017(a), the fees established hereby shall be effective 60 days after the adoption of this Ordinance.

PASSED AND ADOPTED, by the City Council of the City of Rancho Cordova this ____ day of _____ 2022, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Donald Terry, Mayor

ATTEST:

_____
Stacy Leitner, CMC
City Clerk

MEMORANDUM

ITEM 10.2.

DATE: November 21, 2022

TO: Honorable Mayor and Council Members

FROM: Nicholas Sosa, Associate Planner

SUBJECT: **A RESOLUTION TO APPROVE THE RANCH FOUR SEASONS SPECIAL PLANNING AREA AMENDMENT AND MAJOR DESIGN REVIEW – PROJECT NO. PLND-0722-0045**

PROPERTY OWNER:	**APPLICANT/DEVELOPER:**
K. Hovnanian at Jaeger Ranch LLC 3721 Douglas Boulevard, Suite 150 Roseville, CA 95661	K. Hovnanian at Jaeger Ranch LLC 3721 Douglas Boulevard, Suite 150 Roseville, CA 95661

PROJECT:	The Applicant is requesting a Major Design Review for a 560-unit single-family Active Adult Community with three product lines (Spring, Summer, and Autumn) ranging from 1,670 SF to 2,925 SF. The project includes a total of (11) single story floor plans with (1) two story floor plan each with (3) architectural elevations. The Applicant is also proposing to increase the typical lot sizes from 43'x105' to 44'x105' which requires updated language to The Ranch Special Planning Area Handbook.
FILE:	PLND-0722-0045
LOCATION:	Located south of Douglas Road and east of Rancho Cordova Parkway within the Ranch Special Planning Area.
ZONING:	The Ranch Special Planning Area (Medium/Low Density Residential) MDR & LDR
APN:	067-2420-010-0000
PLANNER:	Nicholas Sosa, Associate Planner

RECOMMENDATION

Per the Applicant's request the proposed project has been continued to December 19, 2022.

MEMORANDUM

ITEM 10.3.

DATE: November 21, 2022

TO: Honorable Mayor and Council Members

FROM: Dalia Fadl, Principal Engineer

SUBJECT: **A RESOLUTION DECLARING A PROTEST HEARING AND AUTHORIZING THE MAILING OF PROPERTY OWNER BALLOT RELATING TO THE IMPOSITION OF THE ANNUAL STORMWATER UTILITY FEE FOR THE SUN CENTER DRIVE WAREHOUSE PROJECT**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would declare the results of the property owner's protest and, if there exists less than a majority protest, authorize the mailing of a ballot to the property owner to approve the levy of the fee to pay for maintenance of storm drainage and flood protection systems for the Sun Center Drive Warehouse project. The action also sets 1:30 p.m. on December 20, 2022 in the office of the City Clerk, as the time and date for the ballot tabulation for the matter.

BACKGROUND

The Sun Center Drive Warehouse project has a condition of approval which requires funding for operation and maintenance of the storm drainage system. This condition will be satisfied by the participation in the new Stormwater Utility Fee for storm drainage and flood protection services which is the subject of tonight’s action.

The property owner of the Sun Center Drive Warehouse project has requested the City annex the project to the City’s Stormwater Utility Fee pursuant to the California Health and Safety Code Section 5471 et seq. to provide the method of financing for storm drainage and flood protection services required to meet the condition.

On November 7, 2022, Council adopted a resolution which established Procedures for the Conduct of a Protest Hearing and Balloting Relating to a Stormwater Utility Fee (the “Procedures”) and designated November 21, 2022, at 5:30 p.m. as the time and place for hearing protests in connection with the annual Stormwater Utility Fee for the Sun Center Drive Warehouse project.

DISCUSSION

The property owner has submitted a petition and waiver for the City to institute the proceedings to participate in the Stormwater Utility Fee. This annexation to the Stormwater Utility Fee will include the project generally known as the Sun Center Drive Warehouse project, see Attachment 2. The maintenance services to be funded include the furnishing of services and materials for the ordinary and usual operation, maintenance, and servicing of the storm drain and flood protection systems.

Attachment 1 is the Resolution declaring the results of the property owner protest and authorizing the mailing of the property owner ballot, as required by Article XIII D of the California Constitution (also known as Proposition 218). The Resolution sets forth the tabulation of ballots on December 20, 2022, at 1:30 p.m. in the office of the City Clerk. The results of the mailed ballot election will be presented to City Council at their regularly scheduled meeting on October 3, 2022, and additional actions will be recommended based on the ballot results.

A “Rate Analysis Report” was approved by City Council on September 4, 2014, by Resolution 103-2014 setting Fiscal Year 2014/2015 maximum annual Stormwater Utility Fee amount for each parcel proportionate to the estimated stormwater runoff for each parcel, see Attachment 3. The maximum annual fee will increase each subsequent Fiscal Year by the annual change in the Consumer Price Index (CPI), during the preceding year, for All Urban Consumers, for the San Francisco-Oakland-San Jose areas, published by the United States Department of Labor, Bureau of Labor Statistics. A sample of the Stormwater Utility Fees for Fiscal Year 2022-2023 are summarized in Attachment 4.

FISCAL IMPACT AND FUNDING SOURCE

There is no impact to the City’s General Fund. Funds collected by this fee will pay for maintenance of storm drainage and flood protection systems.

ATTACHMENT(S)

1. Resolution
2. Annexation Boundary Map
3. Stormwater (SWU) Rate and Analysis Report
4. Stormwater Utility Fee- Rate Sheet FY22-23

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, DECLARING THE RESULTS OF THE PROPERTY OWNER PROTEST AND AUTHORIZING THE MAILING OF A PROPERTY OWNER BALLOT RELATING TO THE IMPOSITION OF AN ANNUAL STORMWATER UTILITY FEE FOR THE SUN CENTER DRIVE WAREHOUSE PROJECT

WHEREAS, this Council has received petitions and waivers from the owners of not less than 100% of the area of land proposed to be annexed into the Stormwater Utility Fee; and

WHEREAS, on November 7, 2022, the City Clerk caused a notice of the time and place of the hearing thereon and on the proposed annexation to the Stormwater Utility Fee to be published and such public hearing was opened on November 21, 2022; and

WHEREAS, the Council adopted Resolution 103-2014 approving a written report entitled, "Rate Analysis Report", dated September 4, 2014 (the "Written Report") prepared by Harris & Associates and filed with the City Clerk containing a description of each parcel of real property within the City to which the Stormwater Utility Fee is applicable (collectively, the "Identified Parcels") and the amount of the Stormwater Utility Fee for each such Identified Parcel for Fiscal Year 2014-15. The Written Report is on file in the office of the City Clerk and is available for public inspection; and

WHEREAS, this Council adopted a resolution which established Procedures for the Conduct of a Protest Hearing and Balloting Relating to a Stormwater Utility Fee (the “Procedures”) and set the date of public hearing; and

WHEREAS, this Council has conducted the public hearing and all interested persons have been afforded the opportunity to be heard, and the City Council has considered all protests against the annexation to the Stormwater Utility Fee; and

WHEREAS, there was no majority protest of the owner of the Identified Parcels subject to the Proposed Stormwater Utility Fee.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA as follows:

1. The foregoing recitals are true and correct.

2. The City Clerk is hereby authorized and directed to mail a property owner ballot in accordance with law and the Procedures.

3. The date of the ballot tabulation shall be December 20, 2022 at 1:30 pm.

4. The date of the Council Meeting to report the results of the mailed ballot election shall be January 3, 2022 at 5:30 or as soon thereafter as the matter may be heard.

5. The City Council hereby designates Dalia Fadl, Principal Engineer, telephone number, (916)

851-8718 to answer inquiries regarding the ballot proceedings and procedural or technical matters.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 21st day of November 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

_____
Donald Terry, Mayor

_____
Stacy Leitner, CMC
City Clerk

CITY OF RANCHO CORDOVA
STORMWATER UTILITY FEE AREA
ANNEXATION 35
SUN CENTER DRIVE WAREHOUSE

Harris & Associates℠

SHAPING THE FUTURE ONE PROJECT AT A TIME℠

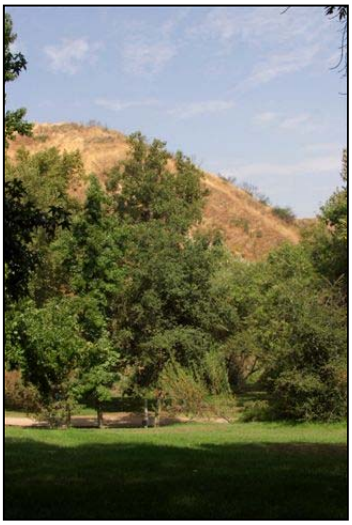
Rate Analysis Report

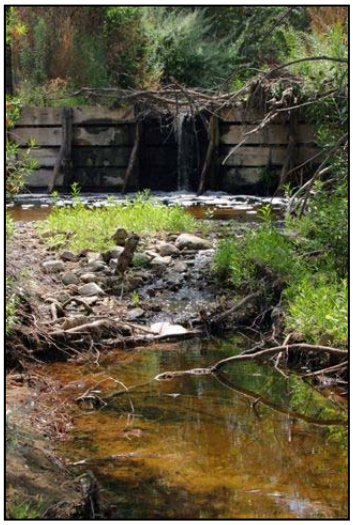
for the

Stormwater Utility Fee

For the

City of Rancho Cordova





August 7, 2014

Introduction

The City of Rancho Cordova (City) is detaching from the County of Sacramento fee and is creating their own Stormwater Utility Fee, which is being levied per the California Health and Safety Code Section 5471 et seq.

The purpose of this Rate Analysis Report is to:

- Review the Stormwater Utility Fee and improvements to be funded.
- Review the requirements of Article XIIID of the State Constitution (Proposition 218) relating to requirements for apportioning the costs associated with the City's stormwater runoff system.
- Analyze and recommend an appropriate rate structure and provide estimated rates based on cost data information provided by the City.

Proposition 218 Requirements

This fee must comply with the provisions of Article XIIID of the California Constitution (Proposition 218). Section 6 of Proposition 218 has the following requirements for all "new, extended, imposed or increased" fees and charges:

1) "Revenues derived from the fee or charge shall not exceed the funds required to provide the property-related service."

2) "Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed."

3) "The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel."

4) "No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of service are not permitted. Standby charges, whether characterized as charges or assessments, shall be classified as assessments and shall not be imposed without compliance with [the assessment section of this code]."

5) "No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services where the service is available to the public at large in substantially the same manner as it is to property owners."

Background Information

In accordance with the Federal Clean Water Act of 1972, the United States Environmental Protection Agency (EPA) is required to establish regulations setting forth National Pollution Discharge Elimination System (NPDES) permit standards. The enactment of 1987 amendments to the Federal Clean Water Act (Act) of 1972 imposes permit requirements for discharge of storm waters. The Act allows the EPA to delegate its NPDES permitting authority to states with an approved environmental regulatory program. The State of California is one of the delegated states.

The responsibility for implementing various NPDES permits in the State of California has been delegated to the State Water Resources Control Board (SWRCB). The SWRCB administers NPDES authority through its nine Regional Boards. As an NPDES permittee, the City is required to manage stormwater pollution within its jurisdiction.

In order to provide for the safety of the residents of the City and protect property in the City from the damage associated with flooding and to meet the requirements of the NPDES permit, it is necessary to design, construct, operate, maintain, improve and replace storm drainage facilities which collect storm and surface water runoff and convey and treat such runoff in a safe manner to an acceptable point of discharge. It is also necessary to inspect, monitor, and take enforcement action related to illegal dumping, and illicit discharges. In order to properly fund such facilities and activities, the City has determined that it is necessary to impose on all developing properties in Rancho Cordova a user charge for storm drainage service.

Based on the 2030 General Plan and current specific plan areas, Rancho Cordova is expected to develop as shown in Table 1 below. The proposed boundary for the stormwater utility is shown in Appendix A.

Table 1 – Land Use

	Land Use/ Zoning Description	Total Acres	Total Units
Residential:			
LDR	SF (2.1-6.0 DU/AC)	2,635	13,156
	MD (6.1-12 DU/AC)	322	2,524
MDR	MD (6.1-18.0 DU/AC)	1,852	13,231
	MD (14.0-29.9 DU/AC)	60	885
HDR	HD (18.1-40.0 DU/AC)	192	4,372
	HD (30+ DU/AC)	30	825
	Residential Total	**5,090**	**34,993**
Non-Residential:			
VC	Village Commercial	202	
LTC	Local Town Center	134	
RTC	Regional Town Center	172	
BP	Business Park	158	
MP	Industrial Park	283	
Education:			
HS/MS	High School/Middle School	356	
MS	Middle School	20	
ES	Elementary School	102	
Open Space & Public:			
CP	Community Park	313	
P/QP	Public/Quasi Public	37	
NP	Neighborhood Park	194	
SWD	Storm Water Detention	186	
WP	Wetland Preserve	745	
DP	Drainage Parkway	270	
PR	Private Recreation	63	
OS	Open Space	168	
OS/P	Open Space/Preserve	279	
LC	Landscape Corridors	123	
GB	Green Belts	54	
ROW	Right-of-way	596	
BR/WP	Reservoir / Wetland Preserve	528	
S	Sewer Lift Station / Utility Substa	14	
	Vacant (unknown dev plan)	595	
	Total Non-residential	5,590	
	Total Residential & Non-Res	**10,680**	

A more detailed land use table by development area is shown in Appendix D.

This development is expected to require significant stormwater drainage and flood control facilities. Based on the development area and improvements that were required in four (4) recent developments

within the County of Sacramento, Table 2 summarizes the improvements that are expected once development is complete.

Table 2 – Expected Improvements

Infrastructure Type	Quantity	
Inlets	6,400	LF
Manholes	4,460	LF
66" Pipe	3,950	LF
60" Pipe	10,280	LF
54" Pipe	11,140	LF
48" Pipe	10,210	LF
42" Pipe	28,620	LF
36" Pipe	42,420	LF
30" Pipe	51,050	LF
27" Pipe	540	LF
24" Pipe	91,960	LF
21" Pipe	2,230	LF
18" Pipe	100,300	LF
15" Pipe	101,300	LF
12" Pipe	529,890	0
10" Pipe	4,170	0
Creeks and Channels	80	AC
Basins	320	AC

Services Funded

Expenditures from the revenue generated from the Stormwater Utility Fee are intended to comply with the requirements set forth in the NPDES permit. The activities and services funded by this fee include, but are not limited to:

1. Administration and oversight of the requirements set forth in the NPDES permit to City departments, developments, and local agencies.
2. Respond to and investigate incidents of illicit discharges and illegal connections to the storm drain system.
3. Periodically inspect facilities for proper handling of materials, chemicals, pollutants, garbage, waste, and debris and prevent any discharges to the storm drain system.
4. Regularly clean and maintain catch basins, the flowline, and storm drainage facilities.
5. Installation and maintenance of water quality devices required to keep pollutants out of the storm drain system.
6. Discourage illegal dumping or discharge of pollutants into the storm drain system by stenciling all City-owned catch basins with a "No Dumping" message.
7. Augment public education and outreach programs in regards to the proper use and function of the storm drainage system and the receiving waters.

8. Develop programs to promote, publicize, and facilitate public reporting of illicit discharges to the storm drain system.

9. Encourage the proper disposal of household hazardous waste (HHW) to prevent the improper disposal to the storm drain system or to the sewer system.

10. Discourage the improper disposal of litter, garden clippings, leaves, and pet waste into the street or the storm drain system.

11. Capital replacement of storm drainage and flood control improvements at the end of the expected useful life for such improvements.

Rate Structure Analysis

Section 6.b of Article XIIID of the State Constitution (Proposition 218) states that:

> "The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel."
>
> and
>
> "No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question."

By definition, all properties that shed stormwater into the City's stormwater drainage system use, or are served by, the City's stormwater drainage system. The amount of use attributed to each parcel is measurable by the amount of storm runoff contributed by the property, which is directly proportional to the amount of impervious area on a parcel (such as buildings and concrete). The more impervious area on a property, the more storm runoff the property generates, the more demand placed on the storm drain system.

The amount each parcel uses the stormwater drainage system is computed by the following formula:

(Parcel Area) x (Impervious Percentage) = Drainage Units

The typical percent impervious (% Impervious) for land uses in the City, have been applied for the purposes of estimating the runoff generated by each property. These are shown in Appendix B.

The more Drainage Units a parcel has, the more storm run-off it generates, and the more it uses and impacts the stormwater drainage system.

It is standard practice to relate other land uses to a developed single family residential (SFR) parcel, instead of working exclusively with drainage units. The median size of a SFR parcel will be approximately 0.16 acre. Therefore, it makes sense to relate all parcels to this median residential property. The runoff from a 0.16-acre SFR parcel is set equal to one Drainage Measurement Unit (DMU) and this base DMU is calculated as follows:

(0.16 acres of area) x 50% = 0.0800 Impervious Area = 1 DMU

Single Family Residential Parcels

As a SFR property increases in size over the median parcel size, the typical percentage of impervious area decreases, as shown in Appendix B. Conversely, as a SFR parcel decreases in size below the median parcel size, the typical percentage of impervious area increases, and such increase is typically proportional to the decrease in size. Therefore, SFR properties are separated into five (5) groups. The median parcel area for each group was used and their DMUs are calculated as follows:

SFR Category	DMU/ Formula
SFR1 – SFR parcels 0.16 acres or less	1.00 DMU
SFR2 – SFR parcels 0.17 - 0.25 acres	1.10 DMUs
SFR3 – SFR parcels 0.26 – 0.33 acres	1.175 DMUs
SFR4 – SFR parcels 0.34 – 0.50 acres	1.25 DMUs
SFR5 – SFR parcels greater than 0.50 acres	$1.25 + \frac{[(\text{acres} - 0.50) \times 5\%]}{0.0800} = \text{DMUs}$

Multi-Family Residential Parcels

Multi-Family Residential (MFR) units (including condominiums) are split into categories by the density, or number of dwelling units per acre (DU/Ac) as follows:

MFR Category	Density	% Impervious
MFR1 - High Density	Greater than 18 DU/Ac	75%
MFR 2 - Med Density	10 – 18 DU/Ac	70%

$$\frac{\text{Acreage} \times \%\text{Impervious}}{0.0800} = \text{DMUs}$$

Condominium unit parcel areas are calculated by dividing the total area of the condominium complex (which includes the common area) by the number of condominium units, and the total imperviousness of the entire complex is attributed to each individual condo parcel in the complex. (This divides the runoff of the entire complex to each of the individual units.) Because these condominium common areas are taken into consideration in this manner, they are exempt from the charge.

Non- Residential Parcels

All non-residential parcel DMUs will be based on the impervious area (runoff coefficient) table shown in Exhibit B, using the following formula:

$$\frac{\text{Acreage} \times \%\text{Impervious}}{0.0800} = \text{DMUs}$$

All parcels draining into Rancho Cordova Stormwater Utility Fee-maintained drainage infrastructure are proposed to be charged the same user fee rate per DMU for stormwater runoff treatment. The Rancho Cordova Stormwater Utility Fee is proposed in perpetuity.

For the purposes of this report, City-maintained drainage infrastructure includes streets, pipes, inlets, outlets, and natural drainage courses. Parcels related to these types of property uses are exempt from the runoff charge, as they are part of the infrastructure being funded. Also exempt from the runoff charge is Caltrans right-of-way, because Caltrans handles its own runoff under a separate NPDES permit.

Drainage units may be adjusted based on appeal from the property owner. See the Appeals Process below.

Table 3, below, provides a preliminary summary of DMUs for the various land uses in Rancho Cordova.

Table 3 – Drainage Measurement Unit Summary Table

Landuse Description	Number of Units	Total Area (acres)	Impervious Area (acres)	DMUs
SINGLE FAMILY RESIDENTIAL (SFR1)	15,107	2,028		15,107.00
SINGLE FAMILY RESIDENTIAL (SFR2)	13,790	2,776		15,169.00
SINGLE FAMILY RESIDENTIAL (SFR3)	14	4		16.45
SINGLE FAMILY RESIDENTIAL (SFR4)				-
SINGLE FAMILY RESIDENTIAL (SFR5)				-
MULTI-FAMILY RESIDENTIAL (MFR1)	6,082	282		2,639.06
COMMERCIAL		666	499	6,240.00
INDUSTRIAL		283	226	2,830.00
SCHOOLS		478	239	2,985.00
PRIVATE RECREATION		63	16	195.31
PARKS/GREENBELTS		561	140	1,752.47
PUBLIC		51	15	190.13
TOTAL	**34,993**	**7,190**		**47,124**

Cost Estimate

Table 4 below shows the estimated costs to maintain infrastructure in the developing areas. Unit costs for maintenance were derived using budget information provided by the County, since the County currently maintains the storm drainage system. The budget information is shown in Appendix C.

Table 4 – Estimated Costs

	Estimated Quantity	Unit	Cost ($/unit)	Frequency	Total Cost/Year
Maintenance Costs:					
Trunk Lines (larger than 24") - TV Lines	158210	LF	$ 7.50	25 years	$ 47,463.00
Drainage Lines 10"-24" Cleaning	829850	LF	$ 3.00	10 years	$ 248,955.00
Drainage Lines 10"-24" TV	829850	LF	$ 7.50	25 years	$ 248,955.00
Creek and Channel Maintenance and Repair	65070	LF	$ 0.75	1 year	$ 49,009.83
Pipe Repairs	998920	LF	$ 0.45	1 year	$ 451,380.43
Creeks and Channels Mowing	80	AC	$6,825	1 year	$ 546,000.00
Creeks and Channels Herbicides	80	AC	$680	1 year	$ 54,400.00
HydroMod Basin Maintenance	320	AC	$4,830	1 year	$ 1,545,600.00
Basin De-silt	320	AC	$1,000	25 years	$ 12,800.00
Basins Herbicides	320	AC	$761	1 year	$ 243,360.00
Replacement Costs:					
Inlets	6400	EA	$2,000	75 years	$170,667
Manholes	4460	EA	$3,500	75 years	$208,133
66" Pipe	3950	LF	$550	100 years	$21,725
60" Pipe	10280	LF	$475	100 years	$48,830
54" Pipe	11140	LF	$400	100 years	$44,560
48" Pipe	10210	LF	$325	100 years	$33,183
42" Pipe	28620	LF	$275	100 years	$78,705
36" Pipe	42420	LF	$225	100 years	$95,445
30" Pipe	51050	LF	$175	100 years	$89,338
27" Pipe	540	LF	$150	100 years	$810
24" Pipe	91960	LF	$125	100 years	$114,950
21" Pipe	2230	LF	$115	100 years	$2,565
18" Pipe	100300	LF	$105	100 years	$105,315
15" Pipe	101300	LF	$95	100 years	$96,235
12" Pipe	529890	LF	$85	100 years	$450,407
10" Pipe	4170	LF	$75	100 years	$3,128

Total:	$5,011,917
Annual Fee Administration:	$45,000
Operating (Cash Flow) Reserve (10% of Maintenance Costs):	$344,792
Estimated Total:	**$5,401,709**

Fee Calculations

The estimated annual costs for the proposed storm drain improvements are $5,401,709 as shown in Table 4 above. Dividing that by the total number of proposed DMU's in Rancho Cordova (47,124), the maximum estimated annual Stormwater Utility Fee rate is **$114.63 per DMU**.

This would be the proposed maximum fee rate for fiscal year 2014-15. The maximum rate will be increased each subsequent Fiscal Year by the annual change in the Consumer Price Index (CPI), during the preceding year, for All Urban Consumers, for the San Francisco-Oakland-San Jose areas, published by the United States Department of Labor, Bureau of Labor Statistics (or a reasonably equivalent index should the stated index be discontinued, as determined by the Director of Public Works).

The actual rate to be levied each year will be as approved by the City at a public hearing, after they consider an Annual Fee Report outlining the estimated annual costs of the program for the ensuing fiscal year.

Table 5 provides sample fee calculations for various land uses and parcel sizes.

Table 5 – Sample Calculations

Land Use Description	Total Area (acres)	Impervious Area (acres)	DMUs	Sample Fee
SINGLE FAMILY RESIDENTIAL (SFR1)	0.16		1.000	$ 114.63
SINGLE FAMILY RESIDENTIAL (SFR2)	0.22		1.100	$ 126.09
SINGLE FAMILY RESIDENTIAL (SFR3)	0.30		1.175	$ 134.69
SINGLE FAMILY RESIDENTIAL (SFR4)	0.40		1.250	$ 143.28
SINGLE FAMILY RESIDENTIAL (SFR5)	1.00		1.563	$ 179.10
MULTI-FAMILY RESIDENTIAL (MFR1)	5.00	3.75	46.875	$ 5,373.12
COMMERCIAL[1]	1.00	0.75	9.375	$ 1,074.62
INDUSTRIAL	1.00	0.80	10.000	$ 1,146.27
SCHOOLS	5.00	2.50	31.250	$ 3,582.08
PRIVATE RECREATION	1.00	0.25	3.125	$ 358.21
PARKS/GREENBELTS	2.00	0.20	2.500	$ 286.57
PUBLIC	2.00	0.60	7.500	$ 859.70

[1] Average of Downtown and Neighborhood Commercial as shown in Appendix B

The Preliminary Charge Roll, which is a listing of each parcel to be charged a fee and its proposed maximum fee for FY 2014-15, is on file in the office of the City Clerk.

Appeals Process

If a property owner disagrees with the calculation of his or her fee, based on the parcel area and estimated impervious percentage assigned to the property, then the property owner may appeal the calculation as follows:

1. Property owner must provide written documentation explaining the reason why the charge should be changed. This documentation must include:
    a. The name, phone number, mailing address, and email address, if available, of the property owner.
    b. The Assessor's Parcel Number (APN) of the property in question.
2. If additional documentation is required or insufficient documentation was submitted, a representative of the Department of Public Works (Staff) will notify the property owner in writing.
3. Once Staff has determined that sufficient documentation has been submitted, Staff will perform the initial review. Staff will notify the property owner in writing within four (4) weeks from the time sufficient documentation was submitted as to whether or not the fee amount will be changed.
    a. If the determination is to change the fee amount, then the new fee amount will be documented within the City's fee database.

b. If the determination is that the fee should not be changed, the property owner can appeal Staff's decision to the Director of Public Works. The appeal must be made in writing and returned no later than four (4) weeks from the date of mailing of Staff's initial review decision. The Director of Public Works will notify the property owner in writing within four (4) weeks from the date of receipt of the appeal as to whether or not the fee amount will be changed.

   If the owner of any parcel shall have reason to feel that the computation of the DMU for his/her parcel is not correct, that person may file an appeal with the Director of Public Works in the manner prescribed by the Director of Public Works. The Director of Public Works will consider all data provided by the appellant and shall render a decision in writing. The decision of the Director of Public Works will be final with respect to City action on the appeal.

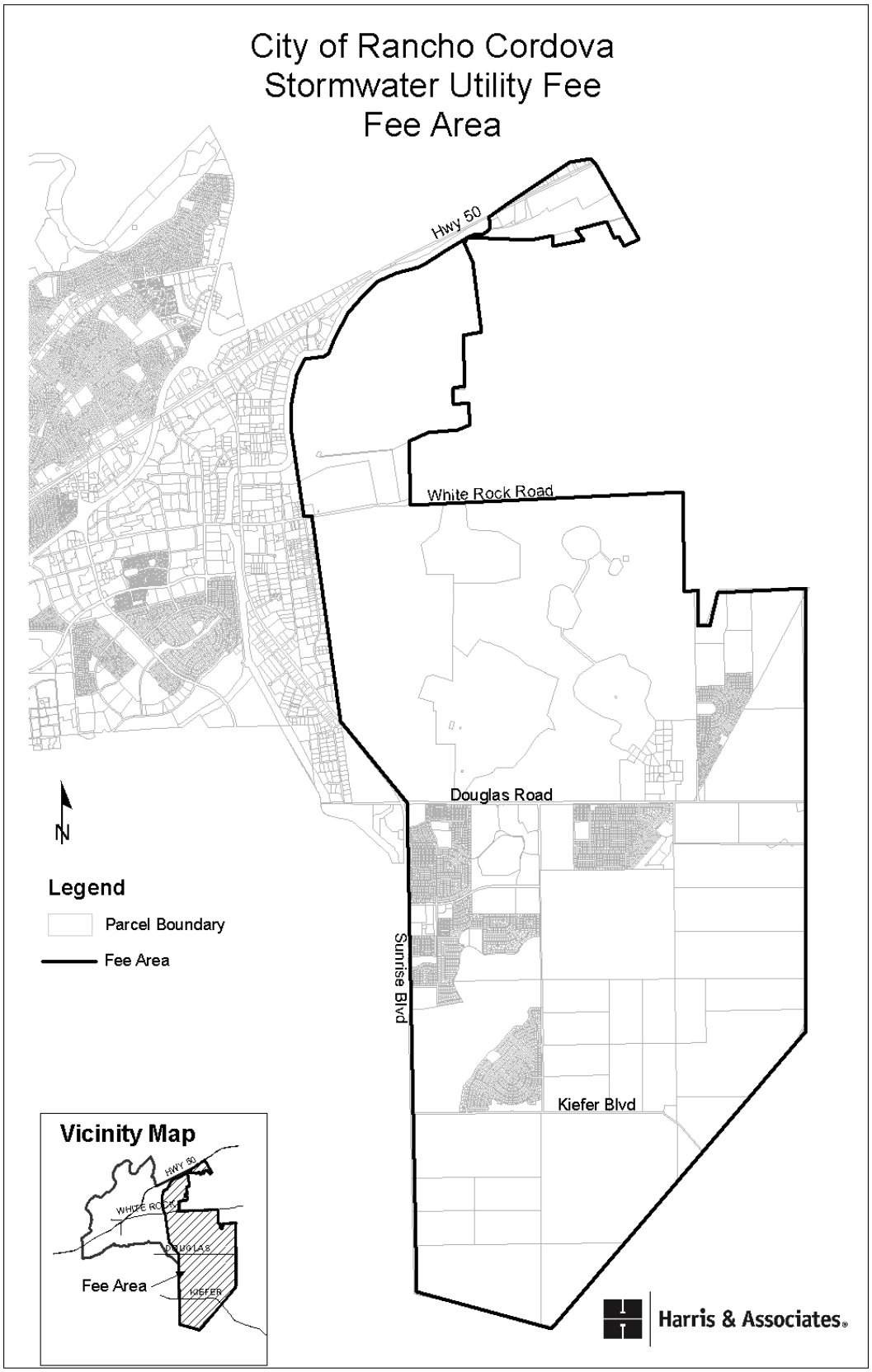
Appeals will be accepted annually up until June 30 for inclusion on the following fiscal year's property tax roll submittal. However, if an appeal is granted by Staff or the Director of Public Works that does not permit inclusion for the following fiscal year's property tax roll submittal, a reimbursement will be provided to the property owner by the City.

Respectfully submitted:

Harris & Associates

Dennis A. Anderson
Senior Project Manager

APPENDIX A


City of Rancho Cordova
Stormwater Utility Fee
Fee Area
Hwy 50
White Rock Road
Douglas Road
Sunrise Blvd
Kiefer Blvd
N
Legend
Parcel Boundary
Fee Area
Vicinity Map
HWY 50
WHITE ROCK
DOUGLAS
KIEFER
Fee Area
Harris & Associates

APPENDIX B

Runoff Coefficient

Land Use		Impervious
Single Family Residential	less than 0.166 acres	50%
Single Family Residential	0.166 acres to 0.250 acres	40%
Single Family Residential	0.251 acres to 0.330 acres	30%
Single Family Residential	0.331 acres to 0.500 acres	25%
Single Family Residential	Over 0.500 acres (excluding the first 0.500 acres)	5%
High-Density Residential (including Apartments and Mobile Home Parks)		75%
Condominiums		70%
Commercial Downtown Areas[1]		80%
Commercial Neighborhood Areas		70%
Industrial		80%
Schools		50%
Parks		25%
Greenbelts		10%

Footnotes:

[1] City of Rancho Cordova Municipal Code Chapter 15.

Sources:

1. Yolo County City/County Drainage Manual, February 2010.
2. Stormwater Quality Design Manual for the Sacramento and South Placer Regions, May 2007.

Appendix C

Cost Information

County of Sacramento/City of Rancho Cordova
Current Storm Drain Maintenance Costs

Pipe Repair Costs

Budget Classification		Repair Type	Actual Expenditures for FY 11/12	FY 13/14 Budget
County North	OCUO	Drain Line Upgrade or Repair	$ 630,912.90	$ 630,912.90
	OFFO	Fence Repair	$ 19,343.41	$ 19,343.41
	OHKO	Inlet Outfall Repair	$ 455,724.02	$ 455,724.02
	OMSO	Erosion Control	$ 26,189.60	$ 26,189.60
	OY8O	Manhole Repair	$ 63,362.44	$ 63,362.44
	RAMP	ADA Compliant Ramp	$ -	$ -
	Overhead	36.39%	$ 435,026.56	$ 435,026.56
		Total Budget=	**$ 1,630,558.93**	**$ 1,630,558.93**
County South	OCUO	Drain Line Upgrade or Repair	$ 105,317.24	$ 105,317.24
	OFFO	Fence Repair	$ 35,802.01	$ 35,802.01
	OHKO	Inlet Outfall Repair	$ 214,660.90	$ 214,660.90
	OMSO	Erosion Control	$ -	$ -
	OY8O	Manhole Repair	$ 8,585.40	$ 8,585.40
	RAMP	ADA Compliant Ramp	$ -	$ -
	Overhead	23.51%	$ 85,667.45	$ 85,667.45
		Total Budget=	**$ 450,033.00**	**$ 450,033.00**
Rancho Cordova	OCUO	Drain Line Upgrade or Repair	$ 222,809.74	$ 229,850.53
	OFFO	Fence Repair	$ 26,326.14	$ 27,158.05
	OHKO	Inlet Outfall Repair	$ 224,877.26	$ 231,983.38
	OMSO	Erosion Control	$ -	$ -
	OY8O	Manhole Repair	$ 4,498.84	$ 4,641.00
	RAMP	ADA Compliant Ramp	$ -	$ -
	Overhead	23.51%	$ 112,504.88	$ 116,060.03
		Total Budget=	**$ 591,016.86**	**$ 609,692.99**
Total LF of Pipes				
		County	7,865,755	7,865,755
		Rancho Cordova	1,349,271	1,349,271
Cost/LF of pipe for Repairs				
		County	**$ 0.26**	**$ 0.26**
		Rancho	**$ 0.44**	**$ 0.45**

* Costs were increased for 12/13 based on comparing actual expenditures in 11/12 with actual expenditures in 12/13.

County of Sacramento/City of Rancho Cordova
Current Storm Drain Maintenance Costs

Creek and Channel Cleaning

Budget Classification		Repair Type	Actual Expenditures FY 11/12	FY 13/14 Budget
County	OCCO	Inspect Channels	$ 149,684.06	$ 149,684.06
	ODSO	Clean, Inspect trach Racks and Box Culverts	$ 203,337.83	$ 203,337.83
	OF8O	Sandbag Distribution	$ 5,184.60	$ 5,184.60
	OFCO	Drainage Response	$ 82,451.66	$ 82,451.66
	OFDO	Concrete Channel Cleaning Bobcat	$ 552,150.54	$ 552,150.54
	OHWO	Vegetation Removal County Forces		
	OJZO	Clean and Inspect Outfall Structures	$ 191,840.84	$ 191,840.84
	OLCO	Access Road Maintenance	$ -	$ -
	OLDO	Mowing		
	OMPO	Expose Pipe End Mechanically	$ 2,720.90	$ 2,720.90
	OMRO	Channel Cleaning Mechanical	$ 49,087.50	$ 49,087.50
	OORC	Rodent Control	$ 32,695.06	$ 32,695.06
	OTVD	Tree Removal	$ 79,463.44	$ 79,463.44
	OVDO	Dry Spoil Dumping	$ 8,137.34	$ 8,137.34
	OWCO	Weed Control Chemical		
	Overhead	36.39%	$ 493,691.29	$ 493,691.29
		Total Budget=	**$ 1,850,445**	**$ 1,850,445**
County	OCCO	Inspect Channels	$ 1,797.15	$ 1,797.15
	ODSO	Clean, Inspect trach Racks and Box Culverts	$ -	$ -
	OF8O	Sandbag Distribution	$ 2,464.80	$ 2,464.80
	OFCO	Drainage Response	$ 1,293.11	$ 1,293.11
	OFDO	Concrete Channel Cleaning Bobcat	$ 144,294.58	$ 144,294.58
	OHWO	Vegetation Removal County Forces		
	OJZO	Clean and Inspect Outfall Structures	$ -	$ -
	OLCO	Access Road Maintenance	$ 57,345.54	$ 57,345.54
	OLDO	Mowing		
	OMPO	Expose Pipe End Mechanically	$ -	$ -
	OMRO	Channel Cleaning Mechanical	$ 32,935.75	$ 32,935.75
	OORC	Rodent Control	$ -	$ -
	OTVD	Tree Removal	$ 214,736.46	$ 214,736.46
	OVDO	Dry Spoil Dumping	$ -	$ -

Budget Classification		Repair Type	Actual Expenditures FY 11/12	FY 13/14 Budget
	OWCO	Weed Control Chemical		
	Overhead	23.51%	$ 106,945.71	$ 106,945.71
		Total Budget=	**$ 561,813**	**$ 561,813**
Rancho Cordova	OCCO	Inspect Channels	$ -	$ -
	ODSO	Clean, Inspect trach Racks and Box Culverts	$ 413.30	$ 413.30
	OF8O	Sandbag Distribution	$ -	$ -
	OFCO	Drainage Response	$ -	$ -
	OFDO	Concrete Channel Cleaning Bobcat	$ 65,905.39	$ 65,905.39
	OHWO	Vegetation Removal County Forces		
	OJZO	Clean and Inspect Outfall Structures	$ -	$ -
	OLCO	Access Road Maintenance	$ -	$ -
	OLDO	Mowing		
	OMPO	Expose Pipe End Mechanically	$ -	$ -
	OMRO	Channel Cleaning Mechanical	$ -	$ -
	OORC	Rodent Control	$ -	$ -
	OTVD	Tree Removal	$ -	$ -
	OVDO	Dry Spoil Dumping	$ -	$ -
	OWCO	Weed Control Chemical		
	Overhead	23.51%	$ 15,592.45	$ 15,592.45
		Total Budget=	**$ 81,911**	**$ 81,911**
Total LF of Channels				
		Rancho Cordova (unlined)	74,628	74,628
		Rancho Cordova (lined)	37,562	37,562
		Total Rancho Cordova	**112,189**	**112,189**
		County (unlined)	1,677,768	1,677,768
		County (lined)	216,153	216,153
		Total County	**1,893,920**	**1,893,920**
Cost/LF of Channel for Cleaning:				
		County	**$ 1.27**	**$ 1.27**
		Rancho	**$ 0.73**	**$ 0.75**

* Costs were increased for 12/13 based on comparing actual expenditures in 11/12 with actual expenditures in 12/13.

County of Sacramento/City of Rancho Cordova
Current Storm Drain Maintenance Costs

Activity	Size/Location	Cost/LF	Frequency	Notes
Pipes/Channels				
Hydro Cleaning	6"-24"	$ 3.00	10 years	
TV Lines	all	$ 7.50	25 years	
Creek and Channel Cleaning	Rancho	$ 0.75	each year	Within SWU Budget
	Sac County	$ 1.27		
Pump Mainteance	Covered within budget			Per County Staff Assume no pumps in new areas.
Repairs	2 crews year round	SWU funds support this		
Hydromod Basin		**cost/ac**		
Maintenance		$ 4,830.00	annul	see detailed estimate
Herbicides		$ 325.00	2 x's/year	
Additional costs				
Pesticide Control Advisor		$ 20,000.00	annually	
Engineering admin support with regulatory agencies		10%	of maint costs/year	
Supervisors and managers		5%	of maint costs/year	

Hydromod Basin Maintenance

Basin Maintenance Costs	Cost per Acre
Trash Clean-up and Disposal (4 x's/year)	$ 1,200
Mowing (2 x's/year)	$ 200
Inspection 4 x's/year	$ 1,600
Erosion Repair	$ 800
Vegetation and Landscape Maintenance	$ 800
Sub-total	**$ 4,600**
Over-head Mark-up (5%)	$ 230
Total Cost	**$ 4,830**

Inspection Includes: Examine gates, fences and access ramp for damage and overgrown vegetation, check basin slopes for erosion, excess vegetation, debris and animal burros, check flow line for excess vegetation and sediment, check for eriosion at water line, large/floating debris, and excess vegetation. Check for debris, creacks and instructure, and erosion at inlets and outlets. Also check access control racks for debris and to snrue they are locked and secured. Check riprap at inlet weir

Appendix D

Detailed Land Use Data

ATTACHMENT 3

Storm Drain User Fee
City of Rancho Cordova
December 20, 2013

AC, Landuse & units derived from GIS/Aerials

		Arista Del Sol		Arboretum		Douglas 98		Douglas 103		Grantline 208		Montelena		Rio Del Oro		Suncreek		The Ranch (Sunridge)		Sunridge Lot J		Westborough		North Douglas II		Heritage Falls		Anatolia IV		Anatolia		Sunridge		
	Land Use/ Zoning Description	**AC**	**Units**	**AC**	**Units**	**AC**	**Units**	**AC**	**Units**	**AC**	**Units**	**AC 2012**	**Units 2012**	**AC**	**Units**	**AC 2013**	**Units 2012**	**AC 2013**	**Units 2012**	**Est.**	**Units 2013**	**AC**	**Units**	**AC**	**Units**	**AC**	**Units**	**AC**	**Units**	**GIS AC**	**GIS Units**	**GIS AC**	**GIS Units**	**Total Acres**	**Total Units**
Residential:																																			
LDR	SF (2.1-6.0 DU/AC)	35.3	176	144.8	698			3.7	14	44.7	276	71.4	388	1,518.5	7,593	179.4	899	142.3	694	35.8	179	347.2	1,580	17.70	153.00	72.20	303.00	21.60	203.00					2,635	13,156
	MD (6.1-12 DU/AC)															321.5	2,524																	322	2,524
MDR	MD (6.1-18.0 DU/AC)	83.8	556	290.0	2,334 [a]	94.2	528	28.2	287	42.8	227	54.4	402	256.0	2,048	43.7	286 [c]	105.4	685	17.5	192	146.8	1,389			92.10	525.00			450.8	2,831	146.4	941	1,852	13,231
	MD (14.0-29.9 DU/AC)			60.4	885																													60	885
HDR	HD (18.1-40.0 DU/AC)													98.0	1,960	44.2	980	12.2	378 *			30.4	922			6.80	132.00							192	4,372
	HD (30+ DU/AC)			29.5	825														* These may be Attached															30	825
	Residential Total	119.1	732	524.7	4,742	94.2	528	31.9	301	87.5	503	125.8	790	1,872.5	11,601	588.8	4,689	259.9	1,757	53.3	371	524.4	3,891	17.7	153	171	960	22	203	450.8	2,831	146.4	941	**5,090**	**34,993**
Non-Residential:																																			
VC	Village Commercial			16.9				19.5				16.6		20.0		22.0		13.5				93.3												202	
LTC	Local Town Center			30.4										20.0								83.5												134	
RTC	Regional Town Center			0.9										113.0		58.4																		172	
BP	Business Park	6.6		65.0										86.0																				158	
MP	Industrial Park													283.0																				283	
Education:																																			
HS/MS	High School/Middle School			72.6										78.0		110.9 [b]						94.0 [b]												356	
MS	Middle School													20.0																				20	
ES	Elementary School			21.2						10.6				54.0												5.50				10.8				102	
Open Space & Public:																																			
CP	Community Park	11.4		60.7						7.8				107.0		44.9		29.3				52.3												313	
P/QP	Public/Quasi Public			2.0								3.2		7.5		12.3						10.6								1.1				37	
NP	Neighborhood Park	3.1		3.8		8.2		5.2		3.4		20.8		67.5		17.0		8.6		6.4				0.71		17.20		3.70		21.2		7.0		194	
SWD	Storm Water Detention	4.0								15.0		9.6		39.0		53.5		24.3						4.00		17.40				9.5		9.6		186	
WP	Wetland Preserve	55.8						43.8		81.0		54.5		510.0																				745	
DP	Drainage Parkway													138.0		5.0						104.6				15.30						7.2		270	
PR	Private Recreation													54.0												4.20				4.3				63	
OS	Open Space			144.5										22.0										0.60		0.80								168	
OS/P	Open Space/Preserve													12.0		45.6		174.0				47.7												279	
LC	Landscape Corridors	1.1				2.8								82.0		19.2										2.70		1.30		13.4		0.7		123	
GB	Green Belts							2.6						51.0																				54	
ROW	Right-of-way	9.5		104.3				8.5		5.3		22.4		192.0		82.6		20.5		14.5		127.1				6.90		2.20						596	
BR/WP	Reservoir / Wetland Preserve			302.8												205.1								19.80										528	
S	Sewer Lift Station / Utility Substation			1.0																										6.6		6.4		14	
	Vacant (unknown dev plan)																													567.4		27.3		595	
	Total Non-residential	91.5		826.1		11.0		79.6		123.1		127.1		1,956.0		676.5		270.2		20.9		613.1		25.1	0.0	70.0	0.0	7.2	0.0	634.3		58.2		5,590	
	Total Residential & Non-Res	210.6	732.0	1,350.8	4,742.0	105.2	528.0	111.5	301.0	210.6	503.0	252.9	790.0	3,828.5	11,601.0	1,265.3	4,689.0	530.1	1,757.0	74.1	371.0	1,137.5	3,891.0	42.8	153.0	241.1	960.0	28.8	203.0	1,085.1	2,831.0	204.6	941.0	**10,680**	

Notes: All data is from recent plans received in Nov 2013 unless specified otherwise.

[a] Arboretum has 2 MD residential classifications. The first line is for 6.1-13.9 DU/AC (instead of 6.1-18)

[b] Acreage for all schools

[c] Suncreek has 2 MD residential classifications. The second line is for 12.1-18 DU/AC (instead of 6.1-18)

Includes April 2012 Amendment

AC estimated

Stormwater Utility Fee

Sample of the Stormwater Utility Fees for Fiscal Year **2022-2023**:

Table 1

Land Use Description	Total Area (acres)	Sample Fee
Single Family Residential (SFR1)	0.16	$143.40
Single Family Residential (SFR2)	0.22	$157.73
Single Family Residential (SFR3)	0.30	$168.51
Single Family Residential (SFR4)	0.40	$179.24
Single Family Residential (SFR5)	1.00	$179.24
Multi-Family Residential (MFR1)	5.00	$1,254.93
Commercial	1.00	$1,344.58
Industrial	1.00	$1,434.24
Schools	5.00	$896.39
Private Recreation	1.00	$448.17
Parks/Greenbelts	2.00	$179.24
Public Property (with structures)	2.00	$537.81

MEMORANDUM

ITEM 11.1.

DATE: November 21, 2022

TO: Honorable Mayor and Council Members

FROM: Nicholas Sosa, Associate Planner

SUBJECT: **THE RESIDENCES AT CAPITAL CENTER – MAJOR DESIGN REVIEW – PROJECT NO. PLND-1221-0024 – LOCATED AT NORTHEAST CORNER OF INTERNATIONAL BOULEVARD AND KILGORE ROAD; APN: 072-0680-065 & -068, 072-0260-051, -053, -054 & -056**

PROPERTY OWNER:	**APPLICANT/DEVELOPER:**
GGC Hwy 50 LLC Cole Partners LLC 2484 Natomas Park Drive, Suite 101 Sacramento, CA 95833	Cole Partners Development Company Rob Cole 2484 Natomas Park Drive, Suite 101 Sacramento, CA 95833

PROJECT:	The Residences at Capital Center
FILE:	PLND-1221-0024
LOCATION:	Northeast Corner of International Boulevard and Kilgore Road
APN:	072-2360-002-0000
PLANNER:	Nicholas Sosa, Associate Planner

RECOMMENDATION

That Council find the Initial Study-Mitigated Negative Declaration with mitigation measures that was prepared and circulated pursuant to the California Environmental Quality Act (CEQA) for the project to be adequate; and adopt the Resolution for Tentative Parcel Map, Tentative Subdivision Map, Major Design Review, and Unified Sign Program.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would adopt the Initial Study-Mitigated Negative Declaration and approve the Applicant's request for a Major Design Review for 177-townhomes for rent and for a 240-unit multi-family development.

BACKGROUND

The approximately 23-acre site is located along Kilgore Road between International Drive and White Rock Road (**See Figure 1**). The property is zoned Office Professional Mixed Use (OPMU) by the City Zoning Code and is located within the Office Mixed Use (OMU) designation of the General Plan.

A small portion of the property is also located within the Surface Mining Overlay (SMO) of the City's Zoning Code. The intent of the SMO is the ensure that land that is disturbed for surface mining operations, is regulated and lands are reclaimed to a usable condition readily adaptable for alternative land uses. This project does not propose any mining or extraction of materials and although a portion of the property is located within this overlay, the regulations and standards of the section would not be applicable.

Figure 1: Project Location

PROJECT DESCRIPTION

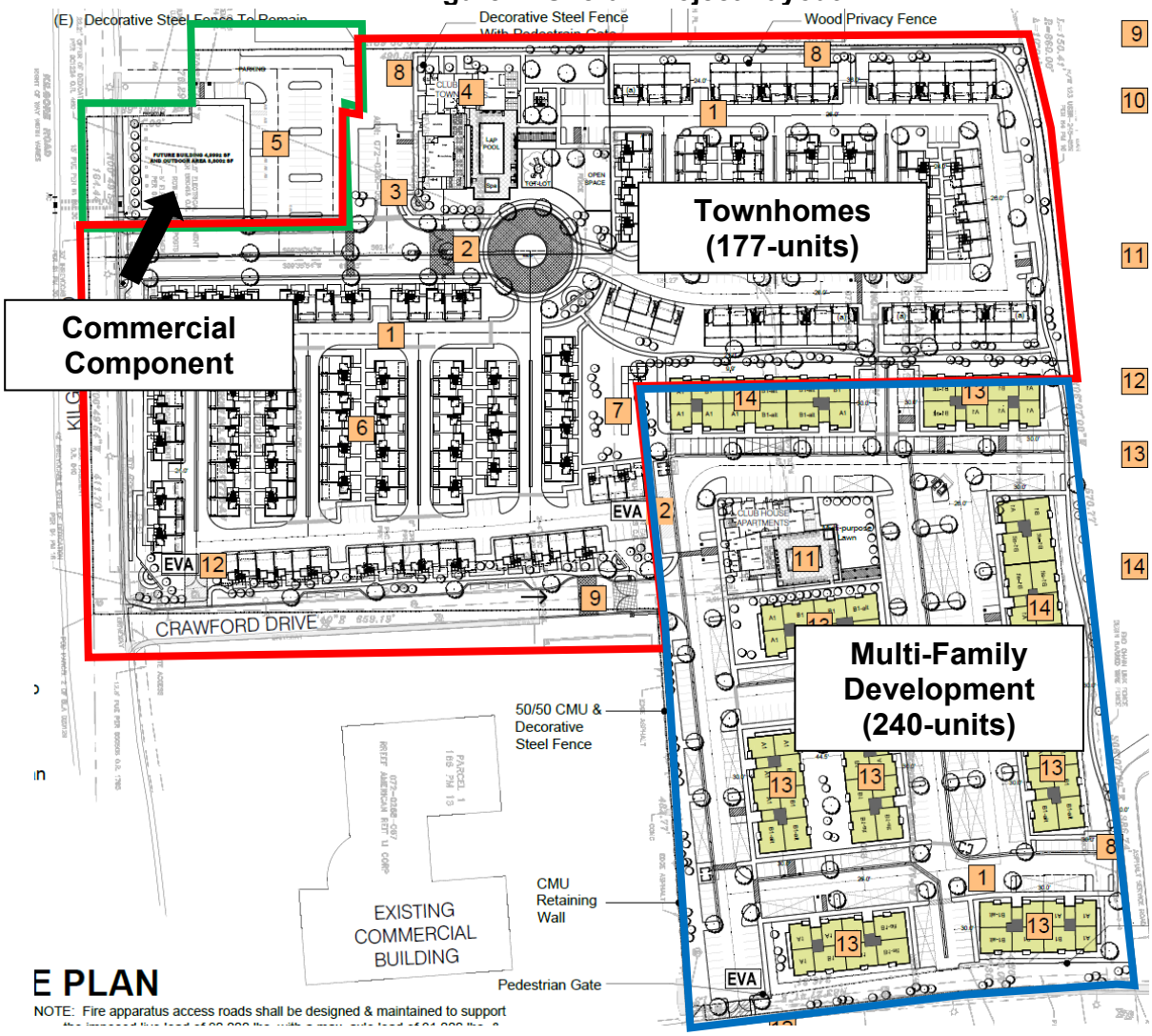
An application was received on December 16, 2021 for a Major Design Review for The Residences at Capital Center. The project property is located adjacent to the San Juan Soccer Club fields and follows along the Folsom South Canal to International Drive. The project consists of two separate residential projects, the north portion consisting of 177 townhome units and the south portion consisting of a 240-unit multi-family development. A small commercial-retail component has also been included along Kilgore Road that will be developed at a later date. A condition of approval has been included that requires this property to submit for a design review and any other applicable permit once a tenant/occupant has been determined.

MAJOR DESIGN REVIEW

Site Plan

The project consists of two residential components and a small commercial component designed to be integrated between each other to create an overall community referenced as The Residences of Capital Center. The townhomes will occupy approximately 12-acres with an additional 0.925 additional acres designated for a commercial component, while the multi-family development occupies approximately 9-acres.

Figure 2: Overall Project Layout



Townhomes

The requested Major Design Review includes a 177-unit residential component consisting of 28 two-story townhome units and 149 three-story townhome units for rent located on approximately 12-acres of the overall project site. The townhome component will also include its own amenities on-site that consist of a 7,200 square foot single-story clubhouse for residents with

pool and fitness center, and also outdoor amenities such as an additional pool/spa, children's playground, dog park, and barbeque, and lounge areas.

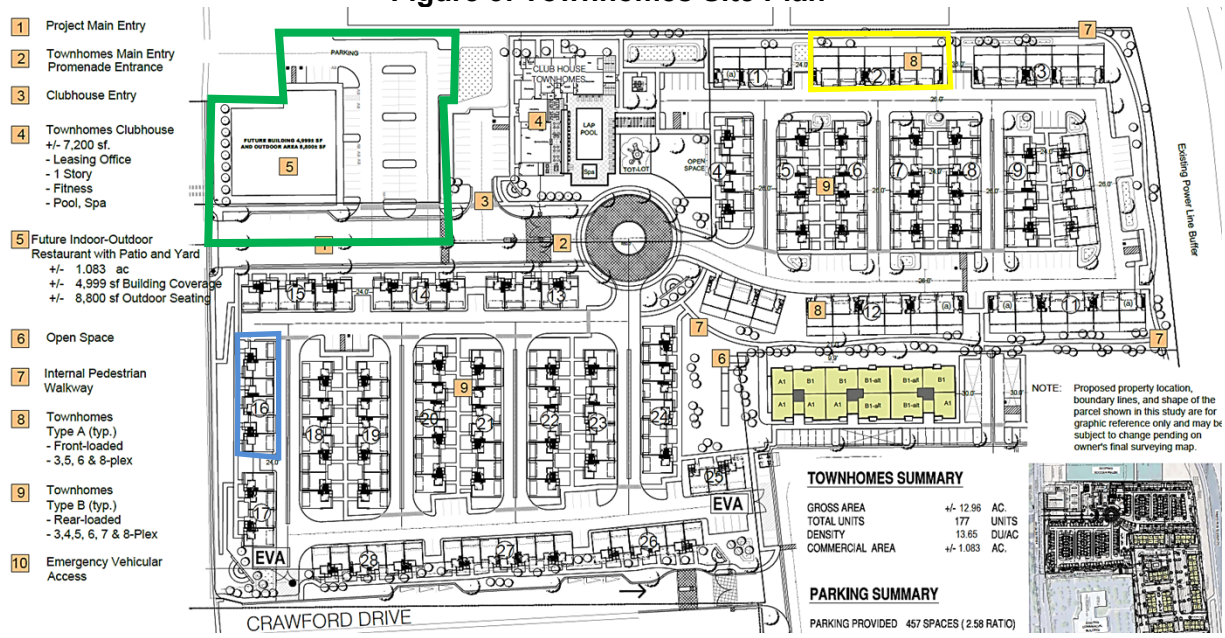
Vehicle Access and Parking

The main access for the townhome component will be through a gated promenade entrance along Kilgore Road. There is no public vehicular access between the townhomes and the apartments however, there will be one Emergency Vehicle Access (EVA) point connecting the two components and an additional EVA connection to Crawford Drive.

The townhomes will be meeting parking requirements as required by Chapter 23.719 for single-family homes by providing a 2-car garage for each unit as well as an additional 103 surface parking spaces for guests. The project proposes a front-loaded product (Building Type A) as well as an alley loaded paseo style product (Building Type B) throughout the area.

Although the development of the commercial component has not been included as part of this application, the site plan has incorporated a separate parking area to accommodate future retail (**see green area in Figure 3**). Any future tenant will need to submit for a separate design review and any additional permits that may be required, at which point the site will be reviewed in more depth to ensure property parking and site requirements.

Figure 3: Townhomes Site Plan



Architecture & Design

Of the 177 total units proposed for the townhomes, 149 of those units are shown as three-story alley loaded while 28 of the units, located mostly around the northeast corner of the site, are shown as two-story front-loaded products (**see Figure 3**). The units have a paseo style design, facing interior pedestrian walkways throughout with some units along the outer edge, facing Kilgore Road and a pedestrian walkway surrounding the property. The Applicant has proposed a modern-contemporary design with building materials consisting of stucco, dark metals, and wood tiling, that will be encompassed throughout the property and adjacent multi-family

development, discussed further in this report. The materials and color board also lists the building colors as a variation of white, gray, and a stucco accent color of Sherwin Williams' "Rocky River" which a blue/green accent color.

In **Figures 4 and 5** below, townhome elevations that have been shown are examples of two-story townhomes and three-story townhomes. However, throughout the project there is a variety of building sizes depending upon how many units are combined together. The examples chosen below are a 5-plex two-story townhome is specifically the (rear) elevation that would be visible from the San Juan Soccer Field and is highlighted in yellow in **Figure 3**. The 6-plex three-story elevation shown is specifically the (front) elevation that would be visible along Kilgore Road and is highlighted in blue in **Figure 3**. All other elevations can be seen in Attachment 2: Project Plans.

Figure 4: Two-Story Townhome Elevation (5-Plex visible from San Juan Soccer)

FRONT ELEVATION

LEFT ELEVATION

REAR ELEVATION

RIGHT ELEVATION

REAR PERSPECTIVE

FRONT PERSPECTIVE

Figure 5: Three-Story Townhome Elevation (6-Plex visible along Kilgore Road)

FRONT ELEVATION

RIGHT/LEFT ELEVATION

FRONT PERSPECTIVE

Scale: 3/16" = 1'-0"

REAR ELEVATION

REAR PERSPECTIVE

Scale: 3/16" = 1'-0"

Site Amenities

The townhome component will also includes a variety of amenities available to the residents. Amenities include a single-story 7,200 SF clubhouse building with accompanying fitness center, lap pool, spa, children's playground, a large outdoor patio area and lounge. The clubhouse has been designed consist with the contemporary modern design of the townhomes and includes similar stucco, wood tile, and dark metal materials throughout.

Figure 6: Clubhouse Elevations

FRONT ELEVATION

LEFT ELEVATION

REAR ELEVATION

RIGHT ELEVATION

Multi-Family Development

The Residences at Capital Center also includes a multi-family apartment community adjacent on an approximately 9 acres adjacent to the townhome component. The proposed development includes a total of 240 apartment units spread across nine (9) 3-story walk up apartment buildings. The development will also include a variety of amenities similar to those included as part of the townhome component.

Vehicle Access and Parking

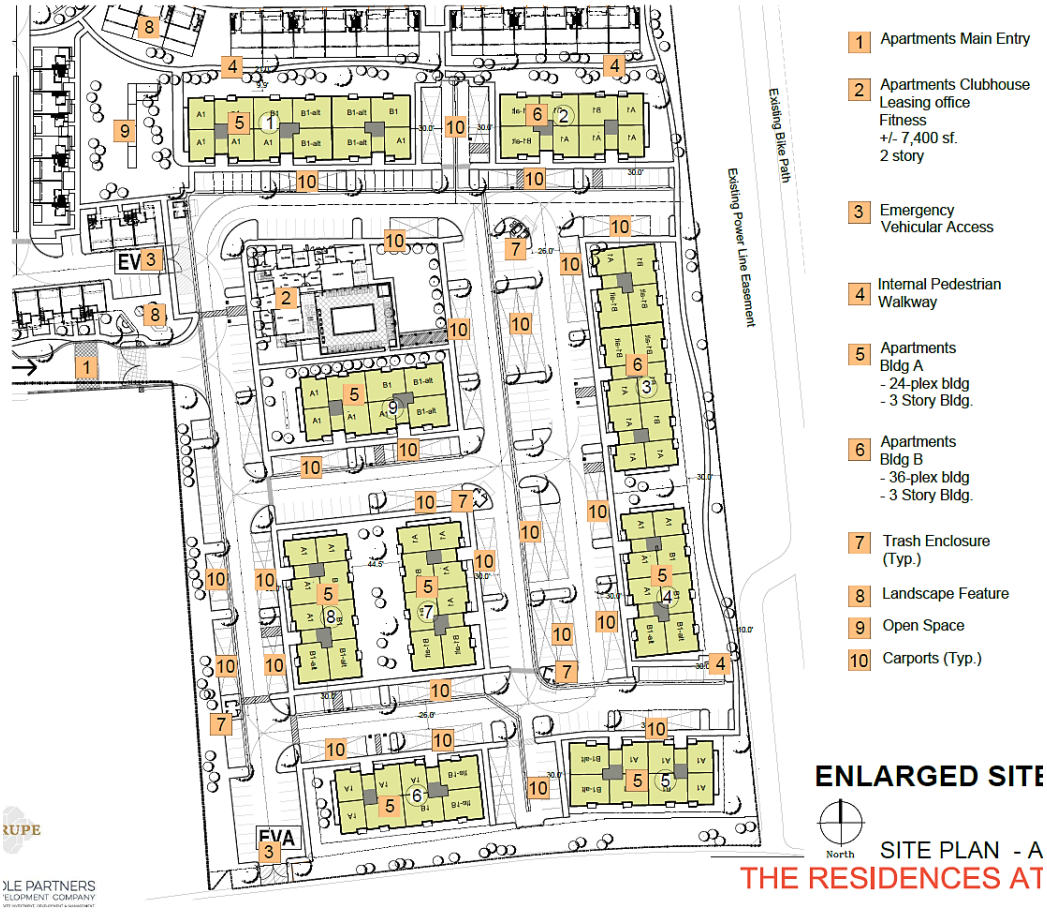
The main entrance for the multi-family development would be through Crawford Drive which directly connects to Kilgore Road. The main entrance will be gated for limited access. Although these access points would not be available for public ingress and egress, the apartment community would also have two (2) EVA points for emergency vehicles including the shared EVA point that connects the townhomes to the apartment community and another EVA point that connects directly to International Drive (**See Figure 7**).

The project has also been reviewed to ensure that the project as proposed is meeting all parking requirements for multi-family development. Per Chapter 23.719 of the City of Rancho Cordova Zoning Code, required parking is determined by the size of each unit with an additional

0.2 spaces required per unit for guest parking. The parking requirement for the development is broken down as follows:

Size of Unit	Parking requirement	# of units proposed	# of spaces required
1 Bedroom	1 space per unit	114	114
2 Bedroom	2 spaces per unit	126	252
+ Guest	0.2 spaces per unit	Total 240 Units	48
			Total 414

Figure 7: Multi-Family Development Site Plan



The proposed project includes a combination of carports and open area parking spaces totaling 430, which is above the minimum 414 requirement and therefore provides more than adequate parking for the development. In addition to vehicle parking, the project is also required to provide a minimum bicycle parking of at least 5% of the total required parking. This would require that the project include at minimum 21 bicycle space for residents on-site. The clubhouse that is included as part of the apartment development will include a bike storage room accessible only to residents that will be able to accommodate the required bike parking spaces.

Architecture & Design

The overall design of the multi-family development includes a total of nine (9) 3-story buildings designed consistent with the modern-contemporary architectural style of the adjacent townhomes. The project includes similar building materials consisting of stucco, dark metals, and wood tiling to maintain the overall design concept of the entire project. The multi-family development will also maintain a consistent color scheme with a variation of whites, gray, and a stucco accent color of Sherwin Williams' "Rocky River".

Figure 8: Apartment Elevations (Building A)

Front Elevation — Scale: 3/16" = 1'-0"

Front Perspective — Scale: NTS

Left Elevation — Scale: 3/16" = 1'-0"

Rear Elevation — Scale: 3/16" = 1'-0"

Rear Perspective — Scale: NTS

Right Elevation — Scale: 3/16" = 1'-0"

The project includes two (2) 36-plex apartment buildings (Building B) with seven (7) 24-plex apartment buildings (Building A). Both buildings that will be rear facing along International Drive, will be Building A, which has been shown in **Figure 8: Apartment Elevations.** Elevations for Building B can be found in Attachment 2: Project Plans.

Site Amenities

The multi-family development will also provide a similar variety of amenities available to the apartment residents on-site. Amenities include a two-story 7,400 SF clubhouse building with leasing office and fitness center. The clubhouse area also includes an outdoor pool and spa, open space dog park area as well as an outdoor patio, barbeque, and lounge areas. The clubhouse is proposed to be compatible with the design of the apartment buildings, utilizing similar building materials and colors for its design.

Figure 9: Apartment Clubhouse Elevations

FRONT ELEVATION
Scale: 3/16" = 1'-0"

LEFT ELEVATION
Scale: 3/16" = 1'-0"

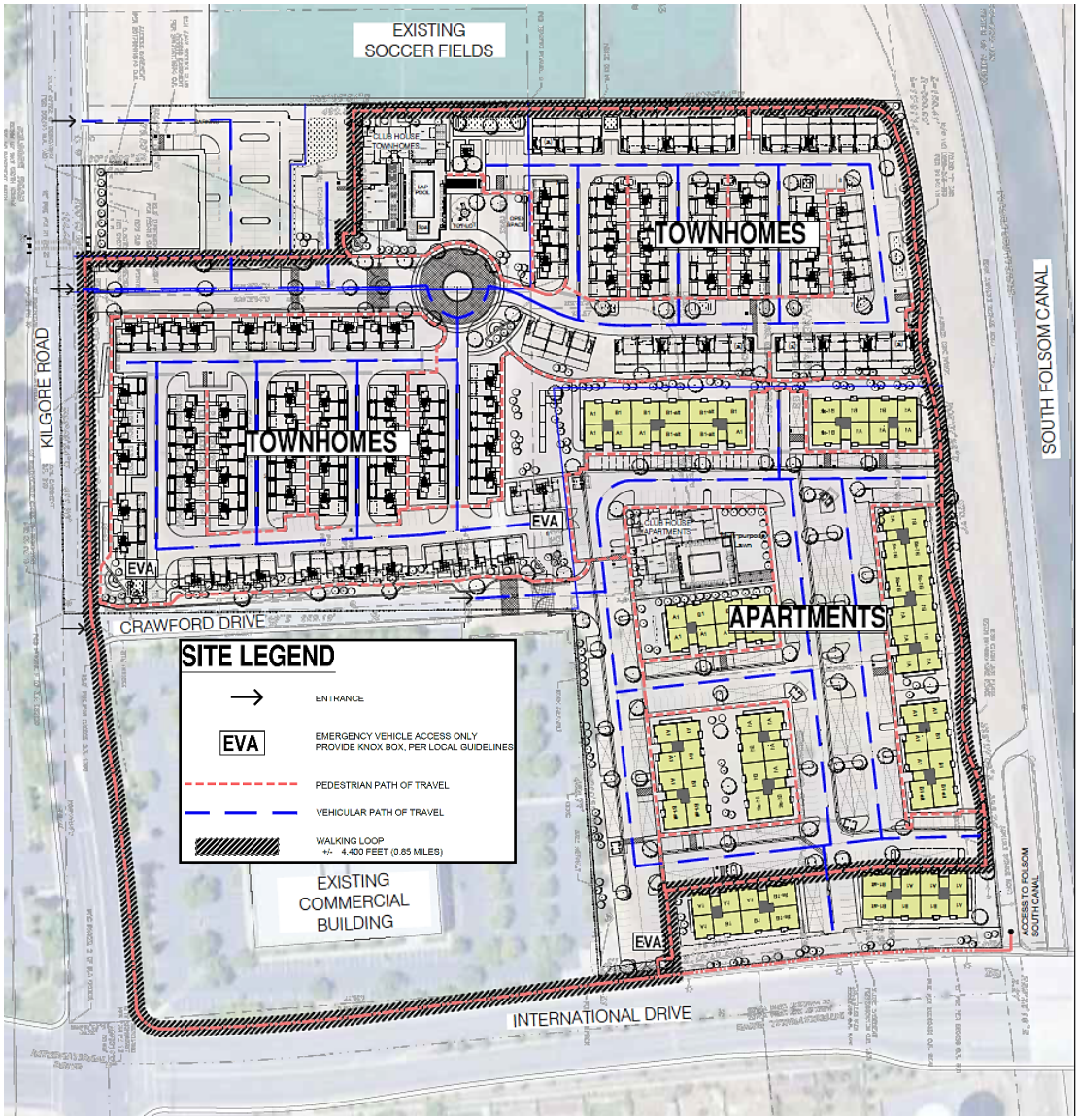
REAR ELEVATION
Scale: 3/16" = 1'-0"

Pedestrian Walkability

The proposed project provides a significant number of interior pathways and connections for residents within the project as well as additional features off-site to enhance access to areas outside the project boundaries.

The townhomes have been designed to be paseo style with pathways between buildings to provide access to front doors and to the clubhouse and other amenities on-site. The Multi-family development will also provide direct pedestrian connections to their clubhouse building and amenities as well. Pedestrian gates will allow cross access between both developments and will also enhance walkability to the future development of the commercial component at the northwest corner of the project. The 0.85-mile walking loop surrounding the entire property is also include as a recreational amenity for residents and includes multiple connections to internal walkways for easy access at any location throughout the project. The internal walkways as well as the highlighted “walking loop” can be seen in **Figure 10**.

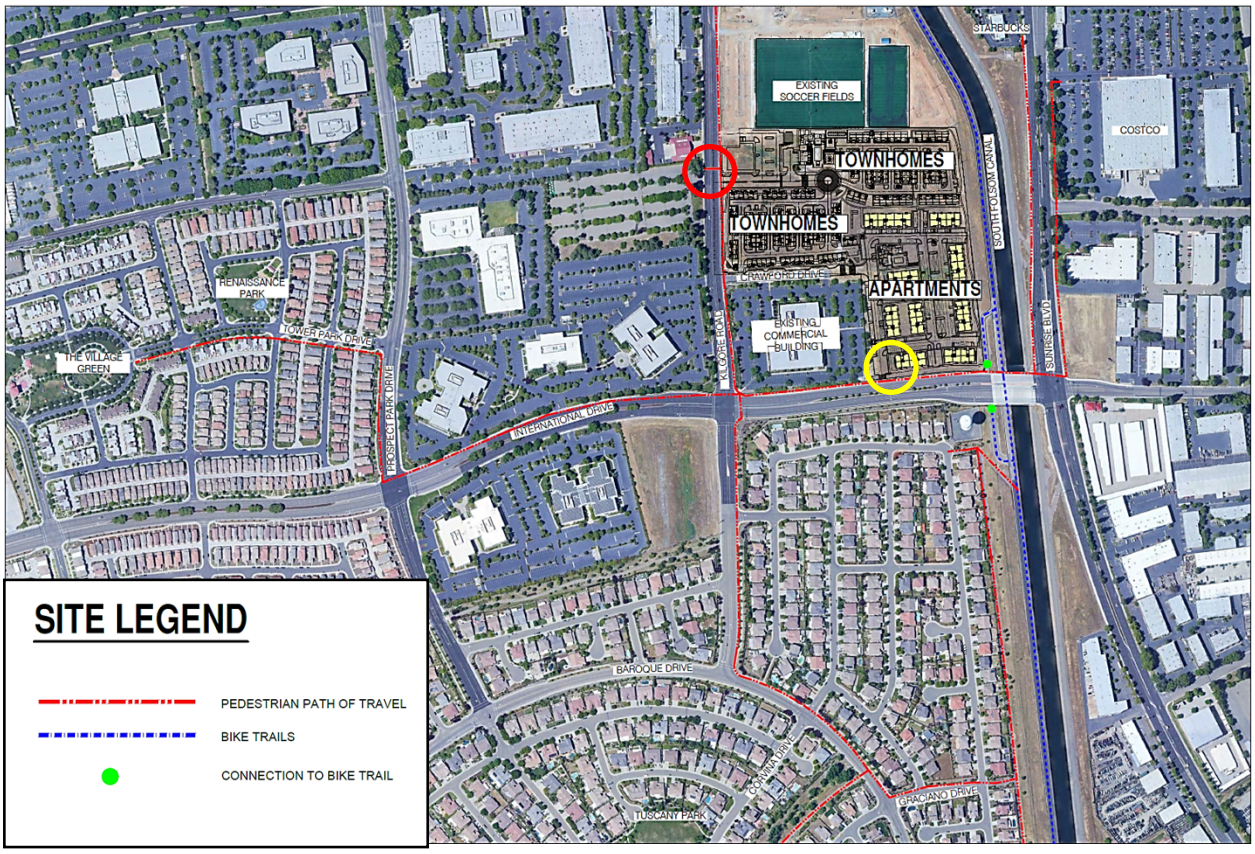
Figure 10: Internal Pedestrian Connectivity Map



In addition to on-site pedestrian connectivity, the project also includes significant connections to off-site amenities and encourages walkability to nearby destinations within the area. The graphic in **Figure 11** shows a pedestrian path of travel from the subject property to nearby destinations such as Capital Village Green, Starbucks and Costco. In an effort to create a safe path of travel across Kilgore Road, the Applicant will also be installing a (High intensity Activated crosswalk (HAWK) at the location circled in red on the graphic below.

Also highlighted on the graphic is a pedestrian opening (circled in yellow) that connects directly from the multi-family development to the adjacent South Folsom Canal and the City's bike trail system. The bike trail can be seen represented as a blue dashed line.

Figure 11: Off-site Pedestrian Connections



Site Landscaping Design

The Residences at Capital Center provides a landscape plan that shows a variation of trees, shrubs, and groundcover that provide a variety of color and textures to the property to enhance visual interest throughout the site. The proposed trees highlight main entrances and pedestrian corridors while also providing shade for on-site gathering areas such as the children's playground, dog park, and open space areas. The trees surrounding the perimeter of the property serve as a screen to help soften the look of the two- and three-story buildings proposed on-site while also serving as shade trees for the 0.85-mile walking loop that also surrounds the property. The proposed trees, in combination with carports, exceed the minimum parking lot shade requirements for the multi-family development. The landscape species and materials have also been reviewed for compliance with the City's approved tree list as well as Chapter 23.716 of the zoning code specified for landscaping.

Figure 12: Preliminary Landscape Plan

NEIGHBORHOOD MEETING

As part of the project review, Staff required that the Applicant conduct a Community meeting with property owners and tenants within the area. The Applicant provided notices to homes and property owners within a radius greater than the minimum required 500', to ensure that homes that may be affected, received notification of the meeting.

The meeting was held on Thursday, October 27, 2022 in person, at City Hall from 5:30PM to 7:00PM. The Applicant provided posterboards showing the site plan of the project as well as elevations of what the proposed project would look like. After presenting the project to residents in attendance, the Applicant was able to sufficiently answer any questions that arose and no further concerns were received.

GENERAL PLAN

The project site is located within the Office Mixed Use (OMU) designation of the City's General Plan. The OMU designation encourages the integration of commercial and/or residential use in conjunction with office use of a site. The proposed project includes both single-family and multi-family development as well as a commercial component for future development. The project is also directly adjacent to an existing building with over 100,000 square feet of office space and an existing outdoor soccer complex. Overall, the entire area integrates a variety of uses from recreational to residential and upholds the mixed-use intent of the General Plan's OMU designation.

ZONING CODE

The project is located within the Office Professional Mixed Use (OPMU) zoning designation of the Rancho Cordova Zoning Code. The OPMU zoning designation is intended to designated property primarily for larger office building developments and business parks however, residential uses and commercial uses may be integrated or located horizontally in freestanding buildings, as supporting uses. The proposed project will provide supporting residential and a small commercial component to the existing adjacent office building. The project will also support the larger business park area directly across Kilgore Road with smaller 1 and 2 bedroom options for nearby residential that could provide local living opportunities for their staff. The project has also been reviewed and found to be in compliance with all applicable development standards and requirements for a single-family and multi-family use within a OPMU zone. A portion of the property is also located within the Surface Mining Overlay as described within the Zoning Code. However, this overlay is applicable only to projects proposing mining or extraction of materials from the site. This project does not proposing any mining activity and therefore the overlay would not be applicable to this project.

FISCAL IMPACT

Staff anticipates that the project will have a positive fiscal impact due to the short term and long term positions for the construction and operation of both residential components of the project. The area is currently undeveloped and the construction of new facilities will provide a positive impact through an increase in property taxes for the site as well as within the surrounding area.

ENVIRONMENTAL

In accordance with the California Environmental Quality Act (CEQA)(Public Resource Code Section 2100 et. seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et. Seq.), a Draft Initial Study/Mitigated negative Declaration (IS/MND) was prepared and circulated for the required 30-day review period, which ended on October 10, 2022. Areas identified in the Draft IS/MND that required mitigation measures to avoid significant effects on the environment include Biological Resources, Cultural and Tribal Cultural Resources, and Tribal Cultural Resources

During the public review period, six comment letters and/or emails on the Draft IS/MND were received from outside agencies and interested parties. As a result of comments received on the Draft IS/MND, minor revisions were made to the Draft IS/MND, however there were no substantial revisions that would require recirculation of the document. The revisions proposed in the Final MND do not meet the criteria for recirculation provided in Section 15073.5(c) of the CEQA Guidelines, nor were project revisions required based upon the comments received.

Attachment 1 of this report includes the Final MND, which includes the minor text revisions, comment letters received, responses to those comment letters and the Draft IS/MND that was circulated.

RECOMMENDED MOTIONS

Staff recommends that the City Council find the Initial Study/Mitigated Negative Declaration with mitigation measures that were prepared and circulated pursuant to the California Environmental Quality Act (CEQA) for the project to be adequate and approve the Major Design Review for The Residences at Capital Center (PLND-1221-0024), subject to the findings, Project Plans (Exhibit A) and Conditions of Approval (Exhibit B) and Mitigation Monitoring and Reporting Plan (Exhibit C).

ATTACHMENT(S)

1. Final Mitigated Negative Declaration
2. Resolution
3. Exhibit A to the Resolution – Project Plans
4. Exhibit B to the Resolution – Conditions of Approval
5. Exhibit C to the Resolution – Mitigation Monitoring and Reporting Plan

November 2022

INITIAL STUDY/PROPOSED MITIGATED NEGATIVE DECLARATION

The Residences at Capital Center

PREPARED FOR:

RANCHO CORDOVA CALIFORNIA

Final
Initial Study/Proposed Mitigated Negative Declaration
for the

Residences at Capital Center

Prepared for:

City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Contact: Nick Sosa, Associate Planner

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916/444-7301

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November 2022

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LIST OF ABBREVIATIONS

AB	Assembly Bill
AF	acre-feet
AFY	acre-feet per year
AQAP	air quality attainment plans
Basin Plan	Sacramento and San Joaquin River Basins
bgs	below ground surface
CAAQS	California ambient air quality standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
City	City of Rancho Cordova
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO_2	carbon dioxide
CRHR	California Register of Historic Resources
CRPD	Cordova Recreation and Park District
CWD	Carmichael Water District
dB	decibels
dBA	A-weighted decibel
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessments
EV	electric vehicle
EVSE	electric vehicle supply equipment
FCUSD	Folsom Cordova Unified School District
FTA	Federal Transit Administration
GHG	greenhouse gas
GSWC	Golden State Water Company
IS/Proposed MND	Initial Study/Proposed Mitigated Negative Declaration
lb/day	pounds per day
lbs	pounds

L_{eq}	Equivalent Noise Level
LID	low impact development
L_{max}	Maximum Noise Level
LOS	level of service
mgd	million gallons per day
MMRP	mitigation monitoring and reporting program
mph	miles per hour
MRZ	Mineral Resource Zones
MS4	municipal separate storm sewer system
$MTCO_2e$	metric tons of carbon dioxide equivalent
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OPR	Office of Planning and Research
PCB	polychlorinated biphenyls
PM_{10}	respirable particulate matter
$PM_{2.5}$	fine particulate matter
RCPD	Rancho Cordova Police Department
REC	recognized environmental conditions
Regional San	Sacramento Regional County Sanitation District
Residences Project	Residences at Capital Center Project
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SacRT	Sacramento Regional Transit
SacSewer	Sacramento Area Sewer District
SASb	South American Subbasin
~~SASD~~	~~Sacramento Area Sewer District~~
SB	Senate Bill
SCMDP	Sacramento County Multi-Hazard Disaster Plan
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMFD	Sacramento Metropolitan Fire District
SQDM	Stormwater Quality Design Manual

SRWTP	Sacramento Regional Wastewater Treatment Plant
SSHCP	South Sacramento Habitat Conservation Plan
SVAB	Sacramento Valley Air Basin
SWPPP	Storm Water Pollution Prevention Plan
TAC	toxic air contaminants
the Project Applicant	GGC Project Ventures
TIS	Transportation Impact Study
tpd	tons per day
tpy	tons per years
U.S. 50	United States Route
UDA	Urban Development Area
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled
WM	Waste Management

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1 INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This Initial Study/Proposed Mitigated Negative Declaration (IS/Proposed MND) has been prepared for the City of Rancho Cordova (City), as the lead agency, to evaluate potential environmental effects resulting from the Residences at Capital Center Project. Under CEQA, the lead agency is the public agency with primary responsibility for approval of the project. Chapter 2 "Project Description" presents detailed project information.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). An Initial Study is prepared by a lead agency to determine if a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]), and thus to determine the appropriate environmental document. In accordance with State CEQA Guidelines Section 15070, a "public agency shall prepare…a proposed negative declaration or mitigated negative declaration…when: (a) The Initial Study shows that there is no substantial evidence…that the project may have a significant impact on the environment, or (b) The Initial Study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level." In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR). By contrast, an EIR is required when the project may have a significant environmental impact that cannot clearly be reduced to a less-than-significant effect by adoption of mitigation or by revisions in the project design.

1.2 WHY THIS DOCUMENT?

As described in the environmental checklist (Chapter 3), the project would not result in any unmitigated significant environmental impacts. Therefore, an IS/Proposed MND is the appropriate document for compliance with the requirements of CEQA. This IS/Proposed MND conforms to these requirements and to the content requirements of State CEQA Guidelines Section 15071.

The purpose of this document is to present to decision-makers and the public information about the environmental consequences of implementing the project. This disclosure document is being made available to the public for review and comment. This IS/Proposed MND will be available for a 30-day public review period from September 9, 2022 and October 10, 2022.

Supporting documentation referenced in this document is available for review at:

City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Comments should be addressed to:

Nick Sosa, Associate Planner
City of Rancho Cordova Planning Division
2729 Prospect Park Drive
Rancho Cordova, CA 95670

E-mail comments may be addressed to: nsosa@cityofranchocordova.org

If you have questions regarding the IS/Proposed MND, please call Nick Sosa at: (916) 851-8753. If you wish to send written comments (including via e-mail), they must be postmarked by October 10, 2022.

After comments are received from the public and reviewing agencies, the City of Rancho Cordova may (1) adopt the MND, mitigation monitoring and reporting program (MMRP), and approve the project; (2) undertake additional environmental studies, potentially including preparation of an Environmental Impact Report; or (3) deny the project. If the project is approved, the project proponent may proceed with the project.

1.3 SUMMARY OF FINDINGS

Chapter 3 of this document contains the analysis and discussion of potential environmental impacts of the project. Based on the issues evaluated in that chapter, it was determined that the project would have either no impact or a less-than-significant impact related to most of the issue areas identified in the Environmental Checklist included as Appendix G of the State CEQA Guidelines. These include the following issue areas:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems
- Wildfire

Potentially significant impacts were identified for biological resources, cultural resources, greenhouse gas emissions, and tribal cultural resources; however, mitigation measures included in the IS/Proposed MND would reduce all impacts to a less-than-significant level.

1.4 PROJECT APPROVALS

The project would require the subject to the following actions:

- City of Rancho Cordova City Council approval of a Conditional Use Permit and Major Design Review
- Sacramento Metropolitan Air Quality Management District: Project Approval
- Sacramento Metropolitan Fire District: Plan Review
- South Sacramento Habitat Conservation Plan permit

1.5 DOCUMENT ORGANIZATION

This IS/Proposed MND is organized as follows:

Chapter 1: Introduction. This chapter provides an introduction to the environmental review process. It describes the purpose and organization of this document as well as presents a summary of findings.

Chapter 2: Project Description. This chapter describes the purpose of and need for the proposed project, identifies project objectives, and provides a detailed description of the project.

Chapter 3: Environmental Checklist. This chapter presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist and determines if project actions would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If any impacts were determined to be potentially significant, an EIR would be required. For this project, however, none of the impacts were determined to be significant after implementation of mitigation measures.

Chapter 4: References. This chapter lists the references used in preparation of this IS/Proposed MND.

Chapter 5: List of Preparers. This chapter identifies report preparers.

2 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

GGC Project Ventures (the Project Applicant) has submitted an application to the City of Rancho Cordova (City) (the Lead Agency) for development of the Residences at Capital Center Project (Residences Project). The Residences Project has been designed as a modern mixed-use infill residential development with a destination commercial-retail component. It would result in the construction of 417 dwelling units (240 multifamily units and 177 townhome rental units) and approximately 5,000 square feet of commercial development.

2.2 PROJECT LOCATION AND EXISTING SETTING

The Residences Project would develop housing within the City of Rancho Cordova, in a location that is approximately 1 mile south of U.S. Highway 50, 9 miles east of downtown Sacramento, and 10 miles southwest of Folsom Lake (Figure 2-1). The project site is 22.9 acres located along International Drive, east of Kilgore Road, and adjacent to the Folsom South Canal (Figure 2-2). The project site is a vacant infill property in the city's Capital Center that is surrounded by residential uses, park facilities, and office and industrial uses. Specific uses include the San Juan Soccer Club complex to the north, industrial development including Costco and California Northstate University College of Pharmacy east of the Folsom South Canal, single family development to the south, and medical office buildings to the west. The site is located near the Rancho CordoVan Village bus route, which provides access to the Zinfandel Light Rail Station.

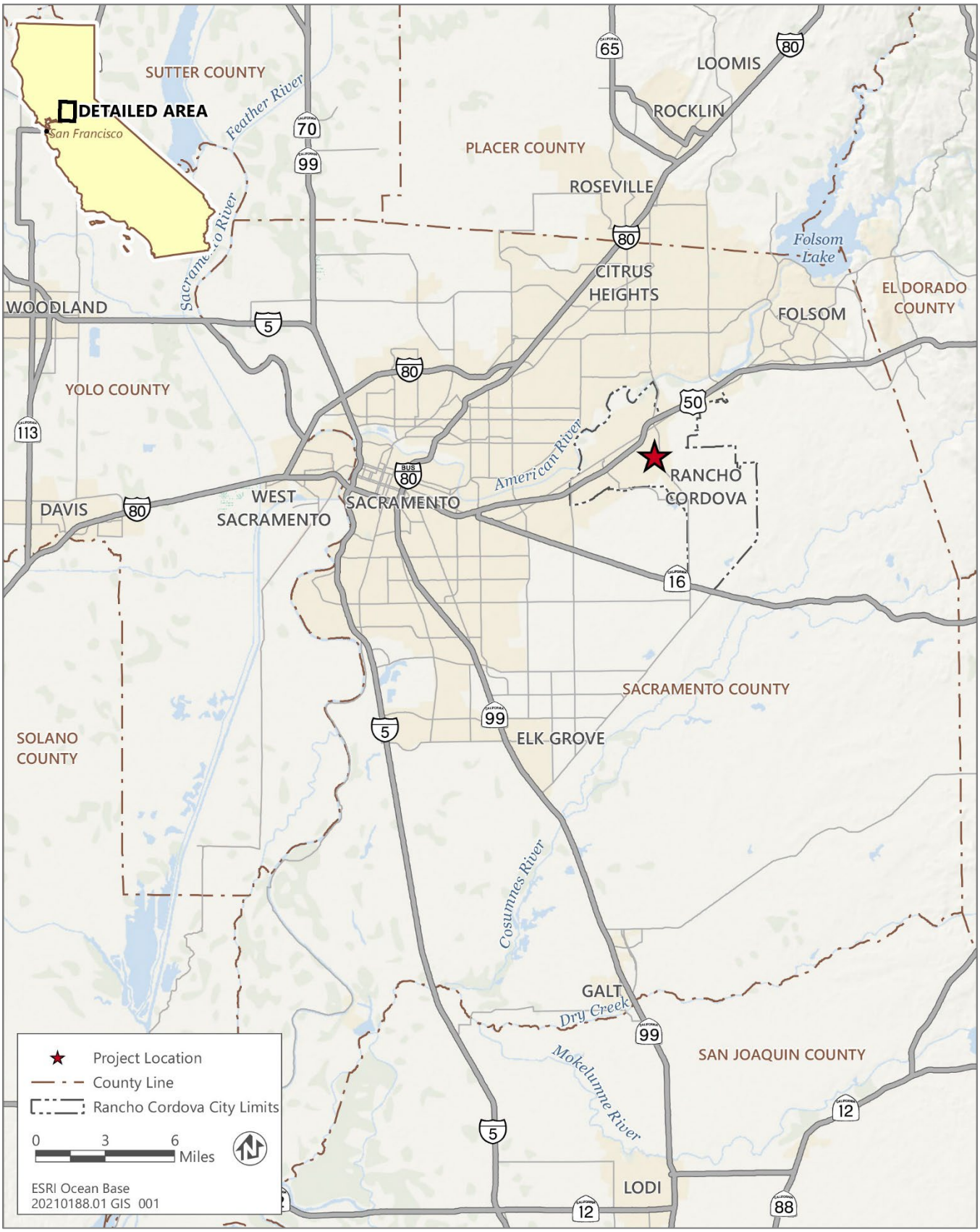
2.2.1 General Plan and Zoning

The Residences Project site is designated as Office Mixed Use in the City's General Plan Land Use Diagram. As described in the City's General Plan Land Use Element, this designation encourages the integration of commercial and/or residential use in conjunction with office use. The zoning designation for the Residences Project site is Office Professional Mixed-Use (OPMU).

2.3 PROJECT OBJECTIVES

Specific project objectives, as stated by the Project Applicant, include the following:

- Develop a high-quality walkable rental community on an infill site at Capital Center.
- Design a community that is complementary in look and feel to the existing office park through attractive modern architectural design and landscaping.
- Provide an open-air, community-oriented commercial space proximate to the proposed residential development, existing office park, and soccer facilities.
- Provide diverse rental housing opportunities in an infill location that is proximate to prominent employment and retail nodes that promotes walking and cycling as alternatives to driving, as well as a "live-work-play" environment.
- Take advantage of pedestrian and cycling connectivity opportunities through improved utilization of existing Rancho Cordova infrastructure. Promote increased cycling between the Residences Project and nearby amenities, shopping at Capital Village, office buildings at Capital Center and Prospect Park, and the Folsom South Canal Recreational Trail.



Source: Prepared by Ascent Environmental 2022

Figure 2-1 Regional Location

Source: Prepared by Ascent Environmental 2022

Figure 2-2 Project Site

2.4 RESIDENCES PROJECT FEATURES

As described above, the Residence Project would consist of residential and commercial components. The northern portion of the site, adjacent to the San Juan Soccer Club, would include 177-units consisting of townhomes and the southeast portion of the site would include a 240-unit multi-family development. There would also be commercial and retail uses in the northeast corner of the site. Each of these project features is shown in Figure 2-3 and discussed below.

2.4.1 Residential

The residential component is conceptualized as two separate residential projects acting as one community.

TOWNHOMES

The townhomes portion of the project would be located on approximately 12 acres just south of the San Juan Soccer Club complex on the northern portion of the Residences Project site. It would include 149 three-story townhome units and 28 two-story townhome units. The three-story units would feature large patios, or lanais, while the two-story units would include enclosed backyards with wood fences. The townhomes portion of the community would also have an approximate 7,000 square foot single-story clubhouse building with pool and fitness center. Outdoor amenity areas would include a pool/spa, children's playground, dog park, and barbeque and lounge areas.

MULTI-FAMILY

The multi-family portion of the community would be located on approximately 9 acres immediately east of the existing commercial building at the northeast corner of Kilgore Road and International Drive. This site would include an approximately 7,000 square foot, two-story clubhouse building with pool and fitness center. Outdoor amenity areas would include a dog park, barbeque, and lounge areas. The clubhouse would feature a large deck area that runs contiguous to a pool and a large community lawn area for residents to congregate and socialize. There would be nine, three-story, garden style walk- up apartment buildings.

2.4.2 Commercial-Retail

The commercial-retail component of the project would be situated on Kilgore Road, adjacent to the townhomes and south of the San Juan Soccer Club complex. It would be located on approximately 1 acre site on the northwest corner of the Residences Project site and would be accessible by motor vehicles via the shared access drive with the San Juan Soccer Club. The proposed commercial development would have approximately 5,000 square feet of building area with approximately 3,500 square feet of outdoor area. The planned open space is designed to buffer the townhomes' clubhouse parking lot from the commercial development; it is envisioned to be a community oriented open-air food and beer garden.

2.4.3 Open Space and Trails

A green space is planned at the center of the project, and wide pedestrian pathways and paseos would wind throughout the project site. At the south side of the Residences Project site, access to the city's pedestrian sidewalk system would connect to the existing Folsom South Canal bike path to the east (providing bicyclists access to the American River Bike Trail and Lake Natoma to the north, and terminating at Cosumnes River to the south). A proposed pedestrian crosswalk on Kilgore Road would provide access to a city-contemplated pathway that would lead to Capital Village in the future. The project also includes 804 new tree plantings.

Source: Prepared by BSB Design 2021

Figure 2-3 Site Plan

2.4.4 Architecture and Design

The proposed building design is modern-contemporary. The structures would be white stucco, which is intended to result in a modern look. Dark metal accents and wood tiling would complement the surrounding landscape. The exterior elevation of the apartments would be approximately 37 feet. The town homes would be between approximately 20 and 30 feet tall. The clubhouse for the apartments would be between these two elevations. The buildings would use varied massing to add visual interest to the large structures. See Appendix A for detailed site design.

BUILDING ENERGY

All project buildings would participate in Sacramento Municipal Utility District's SolarShare program and would include cool roofs. The residential units would be all electric, but gas hook-ups are proposed for the restaurant, heating the pool and spa, two fire pits, and the clubhouse kitchen. All non-residential buildings will be designed with electrical capacity sufficient to support future electrification. At least 25 percent of paved area will have an albedo of no less than 0.25.

2.4.5 Access and Parking

Primary vehicle access to the Residences Project would be from three points off of Kilgore Road (see Figure 2-3). The commercial portion of the Residences Project would be accessed via the existing drive to the San Juan Soccer Club. The entrance to the townhomes would be through a grand promenade entrance south of the commercial area. Access to the multi-family project would be via Crawford Drive, an existing, tree-lined private road located just north of the existing commercial building on the northeast corner of Kilgore Road and International Drive. Emergency vehicle access would be provided to International Drive just east of the existing commercial building.

At least 218 of the parking spaces would be electric vehicle ready stalls (23 percent of total) and at least 12 electric vehicle chargers would be installed. In addition, the project would exceed CalGreen bike parking standards for short- and long-term bike parking/storage.

2.5 RESIDENCES PROJECT CONSTRUCTION

Construction is estimated to occur over 3 years, beginning in August of 2022. The entire site would be graded, with a maximum of 3 acres graded in a single say and approximately 1,500 cubic yards of daily cut and fill. All construction activities would occur between the daytime hours of 7:00 a.m.– 6:00 p.m., Monday through Saturday, and 9:00 a.m.– 6:00 p.m. on Sunday.

Construction practices would adhere to established regulations and permit requirements. In addition, the following specification would be required to reduce emissions following Sacramento Metropolitan Air Quality Management District guidelines:

- All exposed surfaces would be watered twice daily.
- Trucks transporting soil, sand, or other loose material on the site would cover or maintain at least 2 feet of free board space. Any haul trucks that would be traveling along freeways or major roadways would be covered.
- Wet power vacuum street sweepers would be used to remove any visible trackout mud or dirt onto adjacent public roads at least once a day.
- Vehicle speeds on unpaved roads would be limited to 15 miles per hour.
- All roadways, driveways, sidewalks, parking lots to be paved would be completed as soon as possible. In addition, building pads would be laid as soon as possible after grading unless seeding or soil binders are used.

- All construction equipment would be maintained in proper working condition according to manufacturer's specifications. The equipment would be checked by a certified mechanic and determine to be running in proper condition before it is operated.

2.6 PROJECT APPROVALS

The project would require the following approvals:

- City of Rancho Cordova City Council approval of a Conditional Use Permit and Major Design Review
- Sacramento Metropolitan Air Quality Management District: Project Approval
- Sacramento Metropolitan Fire District: Plan Review
- South Sacramento Habitat Conservation Plan permit
- Cordova Recreation and Park District certificate of compliance

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3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1.	Project Title:	Residences at Capital Center
2.	Lead Agency Name and Address:	City of Rancho Cordova 2729 Prospect Park Drive Rancho Cordova, CA 95670
3.	Contact Person and Phone Number:	Nick Sosa, Associate Planner (916) 851-8750
4.	Project Location:	East of Kilgore Road, west of the Folsom South Canal and Sunrise Boulevard, and north of International Drive (assessor parcel numbers (APNs) 072-0260-051, -054, -056; 072-0680-065, -068)
5.	Project Sponsor's Name and Address:	GGC Project Ventures LLC 2484 Natomas Park Drive, #101 Sacramento, CA 95833
6.	General Plan Designation:	Office Mixed Use (OMU)
7.	Zoning:	Office Professional Mixed-Use (OPMU)

8. Description of Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

   GGC Project Ventures LLC (project applicant) is proposing the development of a mixed-use infill residential development with a destination commercial-retail component on 22.9 acres. The Residences Project would result in a total of 417 units comprised of 240 multifamily units, 177 townhome rental units, and approximately 5,000 square feet of commercial. Refer to Chapter 2, "Project Description," for a complete project description.

9. Surrounding Land Uses and Setting: (Briefly describe the project's surroundings)

   The project site is surrounded by residential uses, park facilities, and office and industrial uses. Specific uses include the San Juan Soccer Club complex to the north; industrial development, including Costco and automotive and laboratory uses east of the Folsom South Canal; single family development to the south; and medical office buildings to the west.

10. Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement)

    - Sacramento Metropolitan Air Quality Management District: Project Approval
    - Sacramento Metropolitan Fire District: Plan Review

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?
Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

    Yes; consultation was requested on February 15, 2022 and completed April 8, 2022.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Where checked below, the topic with a potentially significant impact will be addressed in an environmental impact report.

☐ Aesthetics	☐ Agriculture and Forest Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology / Soils	☐ Greenhouse Gas Emissions	☐ Hazards / Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance
	☐ None	☒ None with Mitigation Incorporated

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project could not have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☒ I find that although the proposed project COULD have a significant effect on the environment, there WILL NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature Date

Printed Name Title

Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less-than-Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics.				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Environmental Setting

The project site is a vacant property with non-native grasses and ruderal vegetation. The project site has been previously disturbed from past management activities, including grading, dredging, and vegetation trimming/removal. The topography of the project site is relatively flat and views from the project site are limited to immediately adjacent properties. Single- and multi-story buildings (less than three stories) on adjacent commercial, residential, and industrial properties and associated ornamental landscaping (e.g., shrubs and mature trees) are visible from the project site. In addition, recreational fields, roadways and bike paths, and the Folsom South Canal are visible from the project site.

The City of Rancho Cordova General Plan identifies views of major peaks and natural landmarks in the region as important scenic vistas, including views of the American River, Sierra Nevada mountain range, Mt. Diablo, Pine Hill, Flagstaff Hill, Pyramid Peak, Carson Spur, Jackson Butte, Mt. Vaca, and Goat Mountain/Snow Mountain (City of Rancho Cordova 2006a). These scenic vistas are not visible from the project site or from adjacent properties due to the distance to these resources, as well as the intervening development and flat topography.

There are no officially designated or eligible state scenic highways in proximity to the project site. The nearest officially designated state scenic highway is a segment of State Route 160 that travels along the Sacramento River, located approximately 15 miles southwest of the project site (Caltrans 2019). The project site is not within the viewshed of State Route 160, based on the distance, intervening development, and flat topography.

The project site is currently vacant, with no existing onsite sources of light or glare. Light sources in the vicinity of the project site are typical of an urban environment, and include street lights and lights from motor vehicles traveling on adjacent roadways, including Kilgore Road, International Drive, and White Rock Road. Other light sources include interior and exterior building lighting and parking lot lighting from adjacent commercial, industrial, and residential

land uses. Existing sources of glare in the vicinity of the project site are minimal and include light reflected from building windows and vehicles.

3.1.2 Discussion

a) Have a substantial adverse effect on a scenic vista?

No Impact. As discussed in Section 3.1.1, scenic vistas are not visible from the project site or from adjacent properties due to the distance to scenic resources, as well as the intervening development and flat topography. Furthermore, the Residences Project would introduce new structures that would be of similar height to the single- and multi-story buildings situated on adjacent properties. Views of the project site would be consistent with views of other development in the project vicinity. Therefore, the Residences Project would not have a substantial adverse effect on a scenic vista.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. As discussed in Section 3.1.1, the project site is not within the viewshed of an officially designated state scenic highway. The project site is vacant and does not include any scenic resources. Therefore, the Residences Project would not substantially damage scenic resources, such as trees, rock outcroppings, and historic buildings within a state scenic highway.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant. The Residences Project site is located in an urbanized area and is within the Office Professional Mixed-Use (OPMU) Zoning District. According to Chapter 23.313 of the Rancho Cordova Municipal Code, this district is intended for the development of larger office buildings and business parks; however, commercial service and residential uses may be integrated into office buildings or as freestanding buildings. The Residences Project would consist of a mixed-use infill residential development with a destination commercial-retail component. The proposed multifamily units, townhome rental units, and commercial space would be an allowed use of the OPMU district.

The Residences Project would be designed in accordance with the City's Design Guidelines, which ensures that the visual character and quality of new development is compatible with surrounding communities. The City's Design Guidelines include architectural recommendations for building massing, scale, form, and style. Specifically, the design guidelines provide that projects with a large building volume should be broken into smaller components and multi-story buildings should incorporate changes in vertical mass to add interest. The guidelines also require an appropriate transition between new and existing adjacent buildings. In addition, the City's Design Guidelines include recommendations for site design, including circulation, building placement and orientation, public spaces, pedestrian amenities, and parking areas (City of Rancho Cordova 2005).

The architectural style of the Residences Project would consist of a modern-contemporary design that is intended to complement the existing office park designation and surroundings (See Appendix A). The proposed structures would meet the height and density requirements of the OPMU district. As required in the City's Design Guidelines, the project is broken into smaller pieces and has been designed to incorporate massing principles. The site layout also places the shorter townhomes and community buildings adjacent to the San Juan Soccer Club and the taller apartments near the existing commercial uses along International Drive. The site plan includes walking paths that would provide pedestrian connectivity throughout the site and to adjacent land uses. The landscape plan includes trees throughout the site, which would provide shade, privacy screening, and visual accents. The landscaping would meet the requirements of Chapter 23.716 of the Rancho Cordova Municipal Code, which includes landscaping standards to enhance the appearance of developments.

Based on the above discussion, the Residences Project would not conflict with the zoning or other regulations in the City's Municipal Code governing scenic quality of the project site.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than Significant. As discussed in Section 3.1.1, the project site is currently vacant, with no existing onsite sources of light or glare. Light sources in the vicinity of the project site are typical of an urban environment, including lighting from adjacent roadways and commercial, industrial, and residential land uses. Existing sources of glare in the vicinity of the project site are minimal and include light reflected from building windows and vehicles.

The Residences Project would introduce new lighting associated with buildings, walkways, and parking lots/structures. These new light sources would be consistent with existing light sources in the project vicinity and typical of the existing urbanized environment. The project design would be consistent with the City of Rancho Cordova Zoning Code lighting standards. Specifically, the project design would comply with Title 1 (General Provisions) of the Zoning Code, which requires that illumination is shielded and not directed onto adjacent properties. In addition, the project design would be consistent with Title III (Use Regulations and Development Standards) of the Zoning Code, which requires that lighting be directed away from residential areas to maintain the privacy and well-being of residents and away from public streets to reduce glare that could interfere with motorists. A photometric plan has been completed that demonstrates the extent of illumination and compliance with the City's standards.

Additionally, the Residences Project would not include surfaces with potential to cause substantial new glare. The project design would be consistent with other nearby development and with the City's Design Guidelines (City of Rancho Cordova 2005).

Based on the discussion above, the Residences Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest Resources.				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Environmental Setting

According to the California Department of Conservation Farmland Mapping and Monitoring Program, the project site is classified as Urban and Built Up Land (CDOC 2016). The project site is currently vacant and zoned OPMU.

3.2.2 Discussion

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. As discussed in Section 3.2.1, there are no lands designated as Important Farmland and there are no agricultural uses within the project site. Therefore, the project would not convert Important Farmland to non-agricultural use.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact. As discussed in Section 3.2.1, the project site is zoned OPMU. The project site is vacant and not enrolled in Williamson Act contracts. Therefore, the project would not conflict with existing zoning for agricultural use or a Williamson Act contract.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. As discussed in Section 3.2.1, the project site is zoned OPMU. The project site is vacant and does not contain forest land or timberland. Therefore, the project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As discussed in Section 3.2.1, the project site is vacant and does not contain forest land. Therefore, the project would not result in the loss of forest land or conversion of forest land to non-forest use.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. As discussed in Section 3.2.1, the project site is vacant and located within an urban, built-up area. Therefore, the project would not result in conversion of Important Farmland to non-agricultural use or conversion of forest land to non-forest use.

3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?	☒ Yes		☐ No	
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Environmental Setting

The project is located in the Sacramento Valley Air Basin (SVAB), which includes the counties of Butte, Colusa, Glenn, Placer, Sacramento, Shasta, Solano, Sutter, Tehama, Yolo, and Yuba. Ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) are the criteria air pollutants of primary concern in this analysis because of their nonattainment status with respect to the applicable national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS) in the SVAB.

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the primary agency responsible for planning to meet NAAQS and CAAQS in Sacramento County, where the project is located. SMAQMD works with other local air districts in the Sacramento region to maintain the region's portion of the State Implementation Plan (SIP) for ozone. The SIP is a compilation of plans and regulations that govern how the region and State will comply with the Clean Air Act requirements to attain and maintain the NAAQS for ozone. The Sacramento region has been designated as a "moderate" 2015 8-hour ozone nonattainment area with an extended attainment deadline of June 15, 2019 (EPA 2019). The 2018 Sacramento Regional 2008 8-Hour Ozone Attainment and Further Reasonable Progress Plan was approved by the California Air Resources Board (CARB) on November 16, 2017. The previous 2013 Update to the 8-Hour Ozone Attainment and Reasonable Further Progress Plan was approved and promulgated by the U.S. Environmental Protection Agency (EPA) for the 1997 8-Hour Ozone Standard. The EPA has not released a notice of approval and promulgation of the 2017 SIP (CARB 2017a).

SMAQMD has developed a set of guidelines for use by lead agencies when preparing environmental documents. The guidelines contain thresholds of significance for criteria pollutants and toxic air contaminants (TACs), and also make recommendations for conducting air quality analyses. As the resource agency related to air quality, lead agencies that do not have adopted CEQA thresholds, rely on guidance and established thresholds from the air districts.

All projects are subject to adopted SMAQMD rules and regulations in effect at the time of construction. Specific rules applicable to the construction of the proposed Project may include but are not limited to the following:

- Rule 201: General Permit Requirements. Any project that includes the use of equipment capable of releasing emissions to the atmosphere may be required to obtain permit(s) from SMAQMD before equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact SMAQMD early to determine whether a permit is required, and to begin the permit application process. Portable construction equipment (e.g., generators, compressors, pile drivers, lighting equipment) with an internal combustion engine greater than 50 horsepower must have a SMAQMD permit or CARB portable equipment registration.
- Rule 202: New Source Review. The purpose of this rule is to provide for the issuance of authorities to construct and permits to operate at new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.
- Rule 207: Federal Operating Permit. The purpose this rule is to establish an operating permitting system consistent with the requirements of Title V of the United States Code and pursuant to 40 FR Part 70. Stationary sources subject to the requirements of this rule are also required to comply with any other applicable federal, state, or SMAQMD orders, rules and regulations, including requirements pertaining to prevention of significant deterioration pursuant to Rule 203, requirements to obtain an authority to construct pursuant to Rule 201, or applicable requirements under SMAQMD's new source review rule in the SIP.
- Rule 402: Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause or have natural tendency to cause injury or damage to business or property.
- Rule 403: Fugitive Dust. The developer or contractor is required to control dust emissions from earthmoving activities or any other construction activity to prevent airborne dust from leaving the project site. Fugitive dust controls include the following:
  - Water all exposed surfaces two times daily.
  - Cover or maintain at least two feet of free board on haul trucks transporting soil, sand, or other loose material on the site.
  - Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day.
  - Limit vehicle speeds on unpaved roads to 15 miles per hour.
  - All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
  - Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes.
  - Maintain all construction equipment in proper working condition according to manufacturer's specifications.
- Rule 442: Architectural Coatings. The purpose of this rule is to limit the emissions of volatile organic compounds from the use of architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within Sacramento County.
- Rule 902: Asbestos. The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of material containing asbestos.

HEALTH EFFECTS

SMAQMD has also issued *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District, Sacramento, California* (SMAQMD 2020a), which contains guidance on how to address the California Supreme Court decision in Sierra Club v. County of Fresno, 6 Cal.5th 502 (2018)—a court decision often referred to as the Friant Ranch decision. In that decision, the California Supreme Court held that an EIR should "relate the expected adverse air quality impacts to likely health consequences or explain in meaningful detail why it is not feasible at the time of drafting to provide such an analysis." SMAQMD's guidance recommends using the Minor Project Health Effects Tool to estimate the level of health effects for an emissions source that results in emissions at or below criteria air pollutant and precursor thresholds of significance. The sole input for the Minor Project Health Effects Tool is the project's geographical location, and the output of the Minor Project Health Effects Tool is based on that location and modeled emissions at 82 pounds per day of oxides of nitrogen (NO_X), reactive organic gases (ROG), or PM, which are the highest thresholds of significance for each of these pollutants in the SMAQMD and neighboring air districts. Therefore, the Minor Project Health Effects Tool is used for projects with emissions at or below air district thresholds of significance.

CRITERIA AIR POLLUTANTS

Concentrations of criteria air pollutants are used to indicate the quality of the ambient air. Emission source types and health effects are summarized in Table 3.3.-1 and Sacramento County's attainment status for the CAAQS and the NAAQS are shown in Table 3.3.-2.

Table 3.3-1 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO_2)	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO_2)	coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO_2 exposure to chronic health impacts
Respirable particulate matter (PM_{10}), Fine particulate matter ($PM_{2.5}$)	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO_2 and ROG	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis
Lead	metal processing	reproductive/ developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases.

[1] "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

[2] "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Sources: EPA 2016.

Attainment Status

As shown in Table 3.3-2, Sacramento County is designated as a nonattainment for ozone with respect to both the NAAQS (8-hour standard) and CAAQS (1-hour Classification and 8-hour standard), nonattainment for PM_{10} with respect to the CAAQS, and nonattainment for $PM_{2.5}$ with respect to the NAAQS.

Table 3.3-2 Attainment Status Designations for Sacramento County

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Ozone	Attainment (1-hour)[1]	Nonattainment (1-hour) Classification-Serious[2]
	Nonattainment (8-hour)[3] Classification=Severe	Nonattainment (8-hour)
	Nonattainment (8-hour)[4] Classification=Severe	Nonattainment (8-hour)
	Nonattainment (8-hour)[5] Classification=Moderate	Nonattainment (8-hour)
Respirable particulate matter (PM_{10})	Attainment (24-hour)	Nonattainment (24-hour)
	Attainment (24-hour)	Nonattainment (Annual)
Fine particulate matter ($PM_{2.5}$)	Nonattainment (24-hour)	(No State Standard for 24-Hour)
	Attainment (Annual)	Attainment (Annual)
Carbon monoxide (CO)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (8-hour)	Attainment (8-hour)
Nitrogen dioxide (NO_2)	Unclassified/Attainment (1-hour)	Attainment (1-hour)
	Unclassified/Attainment (Annual)	Attainment (Annual)
Sulfur dioxide (SO_2)[6]	(Attainment Pending) (1-Hour)	Attainment (1-hour)
	(Attainment Pending) (1-Hour)	Attainment (24-hour)
Lead (Particulate)	Attainment (3-month rolling avg.)	Attainment (30 day average)
Hydrogen Sulfide	No Federal Standard	Unclassified (1-hour)
Sulfates	No Federal Standard	Attainment (24-hour)
Visibly Reducing Particles	No Federal Standard	Unclassified (8-hour)
Vinyl Chloride	No Federal Standard	Unclassified (24-hour)

[1] Air Quality meets federal 1-hour Ozone standard (77 FR 64036). EPA revoked this standard, but some associated requirements still apply. SMAQMD attained the standard in 2009. SMAQMD has requested EPA recognize attainment to fulfill the requirements.

[2] Per Health and Safety Code (HSC) § 40921.5(c), the classification is based on 1989 – 1991 data, and therefore does not change.

[3] 1997 Standard.

[4] 2008 Standard.

[5] 2015 Standard.

[6] 2010 Standard.

Source: EPA 2019 and CARB 2018.

TOXIC AIR CONTAMINANTS

At the local level, air districts may adopt and enforce CARB control measures for TACs. Under SMAQMD Rule 201 ("General Permit Requirements"), Rule 202 ("New Source Review"), and Rule 207 ("Federal Operating Permit"), all sources that possess the potential to emit TACs are required to obtain permits from SMAQMD. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including New Source Review standards and air toxics control measures. SMAQMD limits emissions and public exposure to TACs through a number of programs. SMAQMD prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors. Sensitive receptors are people or facilities that generally house people (e.g., schools, hospitals, residences) that may experience adverse effects from unhealthful concentrations of air pollutants.

ODORS

Although offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable stress among the public and often generating citizen complaints to local governments and SMAQMD. SMAQMD's Rule 402 (Nuisance) regulates odorous emissions.

SENSITIVE RECEPTORS

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants. The closest sensitive receptor to the project area is the existing residences across International Drive, which are approximately 200 feet south of the project area and 850 south of the proposed commercial site.

3.3.2 Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact. SMAQMD has developed air quality attainment plans (AQAPs) (i.e., Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan), which present comprehensive strategies to reduce volatile organic compounds, NO_X, PM_{10}, and $PM_{2.5}$ emissions from stationary, area, mobile, and indirect sources to achieve attainment status of the SIP, CAAQS, and NAAQS. SMAQMD has not prepared a similar plan for particulate matter attainment. The emission inventories used to develop the applicable AQAPs are based primarily on projected population and employment growth and associated vehicle miles traveled (VMT) for the SVAB. This growth is estimated for the region, based in part, on the planned growth identified in regional and local land use plans such as general plans or community plans. Projects whose growth is included in the projections used in the formulation of the AQAPs are considered to be consistent with the AQAPs and would not interfere with its attainment plans.

The project would consist of a mixed-use infill residential development with a destination commercial-retail component. The proposed multifamily units, townhome rental units, and commercial space would be an allowed use of the OPMU district. Because the project would be consistent with existing land use and zoning for the project site, the project would be consistent with SMAQMD's AQAPs. Furthermore, as discussed for item b), the short-term construction and long-term operation of the project would not generate emissions of criteria air pollutants and precursors that would exceed the SMAQMD-established mass emission thresholds, which were developed to determine whether a project's emissions would cumulatively contribute to the nonattainment designations in the SVAB.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than significant. Sacramento County is currently designated as nonattainment with respect to the NAAQS and CAAQS for ozone, the NAAQS for $PM_{2.5}$, and the CAAQS for PM_{10}. The SMAQMD CEQA Guidelines identifies whether a project would violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation through pounds per day significance thresholds. Project level thresholds were developed to bring the SVAB into attainment for the NAAQS and CAAQS and to be protective of human health. Project-generated construction and operational emissions, in comparison to SMAQMD thresholds, are presented below. Construction activities would result in temporary generation and emissions of criteria air pollutants and precursors. Construction- and operational-related emissions were estimated using the California Emissions Estimator Model (CalEEMod) Version 2020.4.0 computer program (CAPCOA 2021), in accordance with recommendations by SMAQMD. Modeling was based on project-specific information where available and default values in CalEEMod that are based on the project's location and land use type. Construction and operational impacts are discussed separately below.

Construction

Project construction is anticipated to occur over 36-month period. Construction-related activities would result in project-generated emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from construction activities (e.g., site preparation, grading, building construction, paving, and architectural coating), off-road equipment, material delivery, and worker commute trips. The project intends to implement SMAQMD's best management practices of fugitive dust and exhaust emissions control including, but not limited to, watering the site two times daily, limiting vehicle speeds on unpaved roads to 15 miles per hour, reduce idling to no more than five minutes, etc. With implementation of SMAQMD's best management practices identified in Section 2.5 of Chapter 2, "Project Description," the SMAQMD's peak daily and annual thresholds increase from zero to 80 pounds per day (lb/day) or 14.6 tons per year (tpy) for PM_{10} and 82 lb/day or 15 tpy for $PM_{2.5}$. As shown in Table 3.3-3, emissions resulting from construction of the project would not exceed applicable thresholds and construction associated with the project would not contribute substantially to the nonattainment status of the SVAB.

Table 3.3-3 Maximum Daily Emissions of Criteria Air Pollutants and Precursors Emissions Associated with Project Construction (lb/day)

Construction Year	ROG (lb/day) Emissions	NO_X (lb/day) Emissions	PM_{10} (lb/day) Emissions	PM_{10} (tpy) Emissions	$PM_{2.5}$ (lb/day) Emissions	$PM_{2.5}$ (tpy) Emissions
2022	4	39	21	<1	12	<1
2023	3	17	3	<1	1	<1
2024	3	16	3	<1	1	<1
2025	100	15	3	<1	1	<1
SMAQMD Thresholds of Significance	None	85	80[1]	14.6[1]	82[2]	15[2]

Notes: ROG = reactive organic gas; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; lb/day = pounds per day; SMAQMD = Sacramento Air Quality Management District; tpy = tons per year

[1] If all feasible BACT/BMPs are applied, then 82 lb/day and 15 tpy.

[2] If all feasible BACT/BMPs are applied, then 80 lb/day and 14.6 tpy.

Source: Modeling conducted by Ascent Environmental in 2022.

Operation

Long-term emissions sources associated with project operation would include area sources (landscape equipment, consumer products, maintenance activities) and mobile sources (vehicle trips to the project area). The project would comply with SMAQMD's BMPs for PM reduction through implementation of California Energy Efficiency Standards and Green Building Code, compliance with SMAQMD Rules, and CARB anti-idling regulations (for deliveries to the commercial site). These measures have been included for the purpose of this analysis as they would be required through the building permit and inspection process. As shown in Table 3.3-4, operational emissions are well below the SMAQMD maximum daily thresholds for all criteria pollutants and the project would not contribute substantially to the nonattainment status of the SVAB.

Table 3.3-4 Unmitigated Criteria Air Pollutant and Precursor Emissions Associated with Project Operations

Source	ROG (lb/day)	NO_X (lb/day)	PM_{10} (lb/day)	PM_{10} (tpy)	$PM_{2.5}$ (lb/day)	$PM_{2.5}$ (tpy)
Area	11	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	8	6	10	2	3	<1
Total	20	7	10	2	3	1
SMAQMD Thresholds of Significance	65	65	80[1]	14.6[1]	82[2]	15[2]

Notes: ROG = reactive organic gas; NO_X = oxides of nitrogen; CO = carbon monoxide; PM_{10} = respirable particulate matter; lb/day = pounds per day; SMAQMD = Sacramento Metropolitan Air Quality Management District.

[1] If all feasible BACT/BMPs are applied, then 82 lb/day and 15 tpy.

[2] If all feasible BACT/BMPs are applied, then 80 lb/day and 14.6 tpy.

Source: Modeled by Ascent Environmental in 2022.

The Minor Project Health Effects Tool was used to evaluate potential health effects of mass emissions associated with implementation of the project; the outputs reflect the potential increase in premature deaths over the background health incidence rate of each health endpoint in the region. However, The *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District, Sacramento, California* (SMAQMD 2020a) notes that, by default, the model generates conservatively high health effects. As explained in the guidance, the outputs are based on simulation of a full year of exposure at the maximum daily average of increases in air pollutant concentrations. In the Minor Projects Health Effects Tool, emissions are assumed to be at 82 pounds per day of NO_X, ROG, or PM. As described above, the project emissions would, in actuality, be substantially less than SMAQMD's recommended mass thresholds for criteria air pollutants. Therefore, the model output of additional mortality (i.e., additional mortality of 2 persons due to ozone and $PM_{2.5}$ exposure) unequivocally overstates the potential cardiovascular and respiratory health impacts of the project, and it is possible there would be no cardiovascular and respiratory health impacts (i.e., zero cases of additional mortality) attributable to mass emissions of the project (SMAQMD 2020a). The SMAQMD guidance also notes that the model output includes only health effects with sufficient research to provide quantification. Other health effects are linked to emissions of $PM_{2.5}$ and ozone that are not quantified in the Minor Projects Health Effects Tool (SMAQMD 2020a). Other health effects of criteria air pollutants and ozone are discussed in Section 3.3.1, "Environmental Setting," above. The linkage between mass emissions and other health effects are not quantifiable, and the project would not result in sizeable quantifiable health effects if it resulted in health effects at all. Therefore, it is presumed that these other health effects would also not be sizeable or would be zero. There also may be no health effects due to the conservative nature of the modeling.

Summary

The project would not result in a SMAQMD threshold of significance exceedance or substantially contribute to a nonattainment status of the SVAB for construction or operations. Furthermore, health effects are unlikely. Although the modeling predicts some consequences from development of the project, this is likely attributable to the conservative nature of the modeling.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant. Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and the potential for increased and prolonged exposure of individuals to pollutants. The closest sensitive receptor to the project area is the San Juan Soccer Club adjacent to the project site and the existing residences across International Drive, which are approximately 200 feet south of the project area.

The potential cancer risk from inhaling diesel PM outweighs the potential for all other diesel PM–related health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2003). With regard to exposure to diesel PM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher level of health risk for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period. According to the Office of Environmental Health Hazard Assessment, when a health risk assessment is prepared to project the results of exposure of sensitive receptors to selected compounds, exposure of sensitive receptors to TAC emissions should be based on a 70- or 30-year exposure period; however, such assessments should be limited to the duration of activities associated with the proposed project if emissions occur for shorter periods (OEHHA 2015). Construction- and operational-related project-generated health risks are discussed separately below.

Construction

Construction-related activities would result in temporary, intermittent emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment. Construction activities would occur at approximately 200 feet away from the

nearest sensitive receptor. Construction activities would occur this close to a sensitive receptor temporarily during the site preparation and grading construction phases.

The results of emissions modeling show that maximum daily emissions of exhaust $PM_{2.5}$ would not exceed 6 lb/day during construction. Considering the highly dispersive properties of diesel PM, the relatively low mass of diesel PM emissions that would be generated at any single place during project construction, the relatively short period during which diesel PM–emitting construction activities would take place, and the fact that the nearest sensitive receptor (occupied residence) is 200 feet away, construction-related TACs would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million or an exposure to non-carcinogens Hazard Index greater or equal to 1.0.

Operation

Project operations would result in the long-term emissions of diesel PM from the increase in vehicle trips and associated diesel PM emissions. In particular, diesel-powered trucks associated with the proposed commercial land uses could emit diesel PM at the project site. However, the frequency of diesel-powered truck trips to and from the project area would be intermittent, few in quantity, and occur a substantial distance away from receptors (850 feet or more). As a result, operation of the project would not result in a substantial increase in concentrations of diesel PM at or near the project area. Thus, operational TACs would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million or a Hazard Index greater or equal to 1.0.

Summary

Because of the dispersive properties of diesel PM, the relatively low mass diesel PM emissions that would be generated in one place during the construction and operation of proposed land uses, and the relatively short construction period, it is not anticipated that project-related TACs would expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million or a Hazard Index of 1.0 or greater.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant. The project would include the development of an infill multi-family residential and commercial property and would not result in the introduction of any new permanent sources of odors to the area. Because construction-related odors would be intermittent, temporary, and would disperse rapidly with distance from the source, construction-related odors would not result in the frequent exposure of a substantial number of individuals to objectionable odors.

With respect to operation, odor sources of concern include wastewater treatment plants, sanitary landfills, composting facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting operations, rendering plants, and food packaging plants (SMAQMD 2016). Residential and commercial uses are not land uses that typically generate odors. Therefore, the proposed project would not generate objectionable odors affecting a substantial number of people.

3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources.				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

3.4.1 Environmental Setting

The project site is located at an elevation of between 109 and 120 feet above mean sea level in the Sacramento Valley, on the north side of the Great Valley Ecoregion. The United States Department of Agriculture, National Resource Conservation Service Web Soil Survey indicates that the project site is underlain primarily by mining dredge tailings, comprising 100 percent of the soil composition (NRCS 2022) The project site appears to have never been developed but has sustained historical disturbance in the form of mining dredge tailing deposits. Vegetation onsite consists of uplandnon-native annual grasses and forbs associated with fallow and previously disturbed areas such as wild oat (*Avena fatua*), tarplant (*Holocarpha virgata*), soft brome (*Bromus hordeaceus*), yellow star thistle (*Centaurea solstitialis*), and bull thistle (*Cirsium vulgare*). There are no trees within the boundary of the project site.

The project site supports approximately 21.6 acres of annual grassland. The project site's annual grassland provides suitable foraging habitat for burrowing owl, loggerhead shrike, Swainson's hawk, and white-tailed kite. The site may also provide suitable breeding habitat for burrowing owl, although a thorough burrow survey has not been completed. Although the site does not support trees or shrubs, nearby shrubs and trees could provide suitable nesting habitat for loggerhead shrike, Swainson's hawk, and white-tailed kite.

The project site is within the Plan Area of the South Sacramento Habitat Conservation Plan (SSHCP). The SSHCP Plan Area is defined as the area in which all conservation actions will be implemented and where all incidental take will occur and includes portions of unincorporated Sacramento County, Galt, and the southern half of Rancho Cordova. The SSHCP Plan Area is divided into two components: inside and outside the Urban Development Area (UDA). The City of Rancho Cordova began implementing the SSHCP in late 2019. The site is within the UDA mapped in the SSHCP, which is where all proposed urbanization will occur and where a limited amount of habitat preservation focused mainly on the protection of vernal pools and streams will occur. The proposed development (i.e., urban development in the UDA) is a covered activity under the SSHCP. Covered Activities are projects or activities that are allowable under the SSHCP's Incidental Take Permits and thus can use the SSHCP to mitigate for impacts that result from implementation of the Covered Activity.

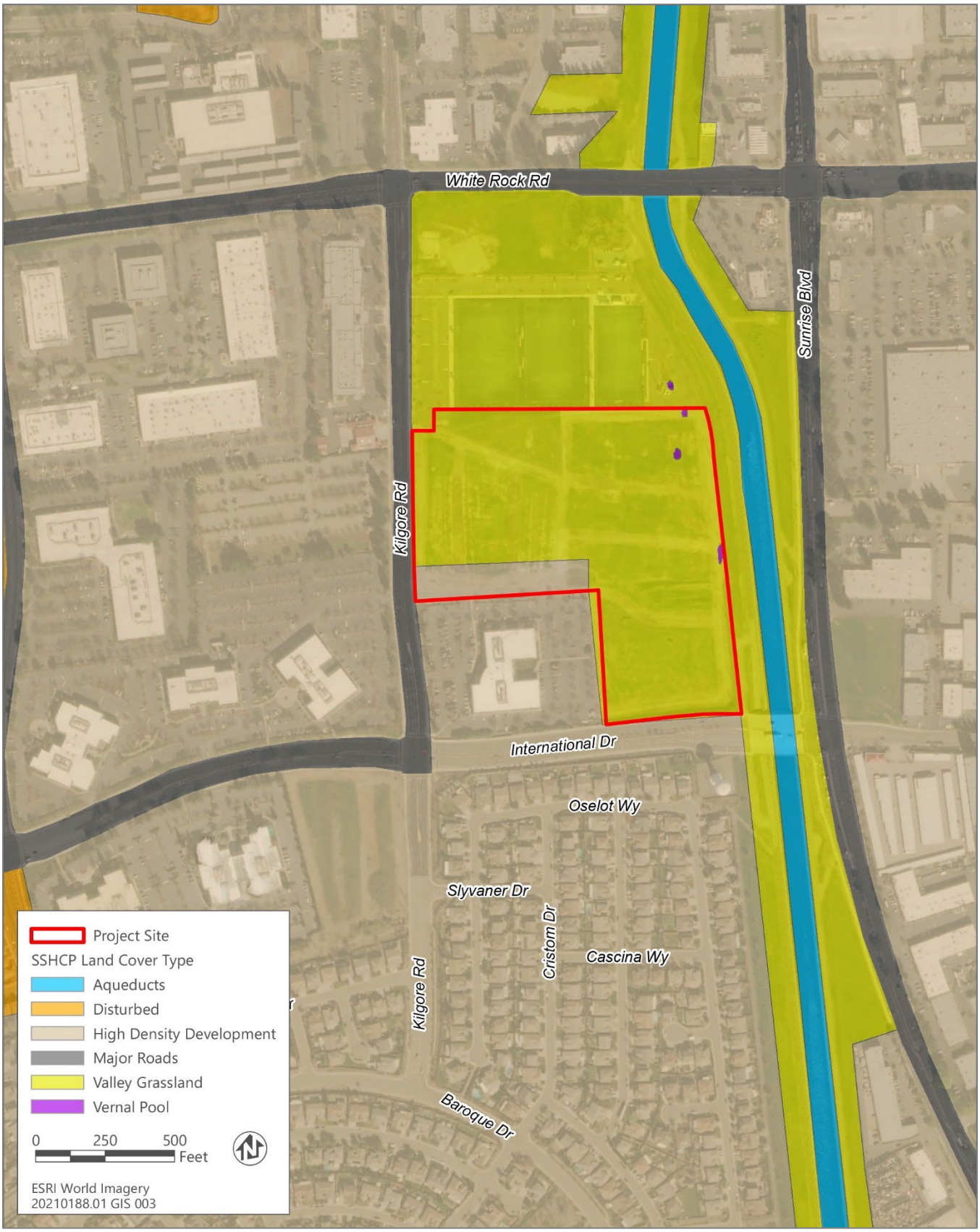
3.4.2 Discussion

Information on sensitive biological resources previously recorded near the study area was collected through a search of the California Natural Diversity Database (CNDDB) and review of the SSHCP (Sacramento County et al. 2018). Databases and background reports reviewed include the following:

- CNDDB record search within the Rio Linda, Citrus Heights, Folsom, Sacramento East, Carmichael, Buffalo Creek, Florin, Elk Grove, and Sloughhouse U.S. Geological Service 7.5-minute quadrangles (CDFW 2022);
- California Native Plant Society, Rare Plant Inventory search of the Rio Linda, Citrus Heights, Folsom, Sacramento East, Carmichael, Buffalo Creek, Florin, Elk Grove, and Sloughhouse U.S. Geological Service 7.5-minute quadrangles (CNPS 2022);
- U.S. Fish and Wildlife Service Information for Planning and Conservation project planning tool (USFWS 2022a);
- U. S. Fish and Wildlife Service. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. (USFWS 2022b); and
- Aquatic Resources Assessment for the Capitol Center Project, City of Rancho Cordova, Sacramento County, California (Appendix B).

The SSHCP includes baseline landcover mapping, which was done at a coarse, regional scale to inform the plan and subsequent permit requests. The baseline landcover mapping for the site shows valley grassland and high density development with three vernal pools on the project site (Figure 3-1). Because conditions may have changed since the SSHCP baseline mapping was completed, site-specific studies are necessary to determine the actual, existing landcovers present on specific sites.

The SSHCP baseline land cover mapping shows that the site may support three small aquatic resources that total about 0.1 acre (Figure 3-1). To determine whether the land cover has changed from the baseline condition and whether vernal pools or other aquatic resources may be present on the project site, an Aquatic Resources Assessment (Appendix B) was performed in accordance with the U.S. Army Corps of Engineers' methodology for delineation of wetlands. The assessment determined that there are no wetlands on the project site, as shown on Figure 3-2. The National Wetland Inventory also does not include any wetlands within the project site. While the existing land cover as shown on Figure 3-2 does not include any aquatic resources, the City will evaluate the updated land cover mapping as part of the SSHCP authorization process and assign mitigation for impacts to land cover, including aquatic resources if present, consistent with the SSHCP's mitigation programs.



Source: Sacramento County et al. 2018.

Figure 3-1 South Sacramento Habitat Conservation Plan Baseline Landcover Types

Source: Madrone Ecological Consulting 2022.

Figure 3-2 South Sacramento Habitat Conservation Plan Landcover Types Identified Through Field Survey

Based on the SSHCP species models, 13 species have a likelihood of occurring on the project site. The CNDDB query returned 21 species as occurring within the nine-quad search area. However, of these species only four have a likelihood of occurring based on existing habitat and known nearby occurrences and these are burrowing owl (*Athene cunicularia*), loggerhead shrike (*Lanius ludovicianus*), Swainson's hawk (*Buteo swainsoni*), and white-tailed kite (*Elanus leucurus*). Species for which suitable habitat is absent from the project site or whose known range does not include the project site were determined not to be affected by project implementation. The CNDDB and California Native Plant Society query results indicate that there are 13 special-status plants with potential to occur in the project area. However, all 13 plants are dependent on wetlands or vernal pools. Because there is no suitable habitat in the project area for wetland dependent species, these species are unlikely to occur.

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated. The project site supports annual grassland that provides suitable foraging habitat for burrowing owl and loggerhead shrike, both California species of special concern; Swainson's hawk, which is listed as a threatened species pursuant to the California Endangered Species Act; and white-tailed kite, a California fully protected species. Implementation of the project would result in direct loss of approximately 21.6 acres of annual grassland. Although the project site soils consist mostly of mine tailings, the area still provides suitable foraging habitat for these species. The loss of foraging habitat for these species would result in substantial negative effects to the sustainability of these species and, thus, impacts to special-status birds are potentially significant.

Burrowing Owl

Burrowing owl is a species that has a high potential for occurrence because of suitable foraging and nesting habitat present within the project site and vicinity. The potential presence of burrowing owl cannot be ruled out without protocol-level surveys. Adults, eggs, and juveniles could be killed during site grading and other ground disturbance that destroys occupied burrows or nest sites. Burrowing owls always need burrows to survive and displacing individuals from their burrows can result in indirect impacts such as predation, increased energetic costs, increased stress, and risks associated with having to find and compete for burrows, all of which can lead to take or reduced reproduction. Construction disturbances could also cause pairs nesting nearby to abandon their nests resulting in mortality of chicks and eggs. The loss of occupied burrowing owl habitat or mortality of adults, chicks, or eggs would be a potentially significant impact.

Swainson's Hawk

For determining impacts to and establishing mitigation for nesting Swainson's hawks in Sacramento County, the California Department of Fish and Wildlife (CDFW) recommends implementing the measures set forth in the CDFW Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994). These measures state that no intensive new disturbances, such as heavy equipment operation associated with construction, should be initiated within 0.25 mile of an active Swainson's hawk nest in an urban setting or within 0.5 mile in a rural setting between March 1 and September 15. Trees adjacent to the project site represent potential nesting habitat for Swainson's hawk. Although no Swainson's hawks have been recorded as nesting within the project site, there are 38 records of Swainson's hawks nesting within 10 miles of the project site. Six of these occurrences were recorded within the last five years (CDFW 2022). Although no tree removal would occur as part of the project, project construction could disturb active nests near the construction area, potentially resulting in nest abandonment by the adults and mortality of chicks and eggs. Construction noise can cause abandonment of nests up to 0.5 mile away in rural settings and 0.25 mile away in more urban settings. Development of the site would result in a potentially significant impact to nesting Swainson's hawk.

White-tailed kite and loggerhead shrike

Although white-tailed kite and loggerhead shrike are not known to nest within the project site and no suitable nesting habitat is present on the project site, trees and shrubs adjacent to the project site represent potential nesting habitat for these species respectively. These two species have a moderate to high potential for occurrence in the project vicinity because suitable nesting and foraging habitat are present in the area. Project construction could disturb active nests of these special-status birds, potentially resulting in nest abandonment by the adults and mortality of chicks and eggs. Loss of chicks and eggs of these special-status species could reduce population levels and contribute to a trend toward these species becoming threatened or endangered in the future, which would be a potentially significant impact.

Special-Status Plants

To date, a special-status plant survey has not been completed to confirm the presence or absence of any special-status plant species that the CNPS identifies as potentially occurring in the project area. However, as indicated above and in Table 3.4-1, the 13 species identified in the database search are considered unlikely to occur. Though unlikely, it is possible that one or more of these species could occur in the project area. If these species are present and project construction would result in the direct loss of individual plants and/or populations, the impact could be potentially significant depending on the listing status and nature of impact.

Table 3.4-1 Special Status Plant Species Known to Occur in the Project Region and Their Potential for Occurrence on the Project Site

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Peruvian dodder *Cuscuta obtusiflora* var. *glandulosa*	--	--	2B.2	Wetland. Marshes and swamps (freshwater). Freshwater marsh. 49–919 feet in elevation. Blooms July–October.	Not expected to occur: The project site does not support wetland, freshwater marshes, and swamp habitat suitable for this species.
Dwarf downingia *Downingia pusilla*	--	--	2B.2	Wetland. Valley and foothill grassland (mesic sites), vernal pools. Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 3–1,608 feet in elevation. Blooms March–May.	Not expected to occur: The project site does not support vernal pool or mesic habitat suitable for this species.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	--	SE	1B.2	Wetland. Marshes and swamps (freshwater), vernal pools. Clay soils; usually in vernal pools, sometimes on lake margins. 33–7,792 feet in elevation. Blooms April–August.	Not expected to occur: The project site does not support wetland habitat suitable for this species.
Woolly rose-mallow *Hibiscus lasiocarpos* var. *occidentalis*	--	--	1B.2	Wetland. Marshes and swamps (freshwater). Moist, freshwater-soaked riverbanks and low peat islands in sloughs; can also occur on riprap and levees. In California, known from the delta watershed. 0–509 feet in elevation. Blooms June–September.	Not expected to occur: The project site does not support wetland, freshwater marsh, and swamp habitat suitable for this species.
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	--	--	1B.2	Valley and foothill grassland. Restricted to the edges of vernal pools in grassland. 98–328 feet in elevation. Blooms March–May.	Not expected to occur: The project site does not support vernal pool habitat suitable for this species.
Alkali-sink goldfields *Lasthenia chrysantha*	--	--	1B.1	Vernal pools. Alkaline. 0–656 feet in elevation. Blooms February–June.	Not expected to occur: The project site does not support vernal pool habitat suitable for this species.
Legenere *Legenere limosa*	--	--	1B.1	Vernal pools, wetland. In beds of vernal pools. 3–2,887 feet in elevation. Blooms April–June.	Not expected to occur: The project site does not support vernal pool habitat suitable for this species.

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Heckard's pepper-grass *Lepidium latipes* var. *heckardii*	--	--	1B.2	Valley and foothill grassland, vernal pools. Grassland, and sometimes vernal pool edges. Alkaline soils. 3–98 feet in elevation. Blooms March–May.	**Not expected to occur:** The project site does not support vernal pool habitat suitable for this species.
Pincushion navarretia *Navarretia myersii* ssp. *myersii*	--	--	1B.1	Vernal pools, wetland. Clay soils within non-native grassland. 148–328 feet in elevation. Blooms April–May.	**Not expected to occur:** The project site does not support vernal pool or wetland habitat suitable for this species.
Slender Orcutt grass *Orcuttia tenuis*	FT	SE	1B.1	Vernal pools, wetland. Often in gravelly substrate. 82–5,758 feet in elevation. Blooms May–September (October).	**Not expected to occur:** The project site does not support vernal pool or wetland habitat suitable for this species.
Sacramento Orcutt grass *Orcuttia viscida*	FE	SE	1B.1	Vernal pools, wetland. 49–279 feet in elevation. Blooms April–July (September).	**Not expected to occur:** The project site does not support vernal pool or wetland habitat suitable for this species.
Sanford's arrowhead *Sagittaria sanfordii*	--	--	1B.2	Wetland. Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0–2,133 feet in elevation. Blooms May–October (November).	**Not expected to occur:** The project site does not support vernal pool or wetland habitat suitable for this species.
Saline clover *Trifolium hydrophilum*	--	--	1B.2	Wetland. Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 0–984 feet in elevation. Blooms April–June.	**Not expected to occur:** The project site does not support vernal pool or wetland habitat suitable for this species.

Notes: CRPR = California Rare Plant Rank; CNDDB = California Natural Diversity Database

[1&2] Legal Status Definitions

Federal:
FE Endangered (legally protected)
FT Threatened (legally protected)
State:
SE Endangered (legally protected)

California Rare Plant Ranks:
1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

Threat Ranks:
0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)
0.3 Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

[2] Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present within the project survey area due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available within the project survey area; however, there are little to no other indicators that the species might be present.

Likely to occur: All of the species life history requirements can be met by habitat present within the survey area, and populations/occurrences are known to occur in the immediate vicinity.

Sources: CNDDB 2022; CNPS 2022.

Mitigation Measure 3.4-1: Obtain Coverage for the Project Under the SSHCP

In addition to payment of development fees in accordance with the SSHCP, the Project Applicant shall implement all applicable Avoidance and Minimization Measures codified in the SSHCP at the time permits are obtained. Avoidance and Minimization Measures currently provided in the SSHCP are included in Appendix C.

Significance after Mitigation

Mitigation Measure 3.4-1 would reduce potentially significant impacts to loss of foraging habitat for special-status birds because this measure would require the Project Applicant to participate in the SSHCP reserve system through fee payment or land dedication to offset habitat loss in a coordinated conservation strategy to maintain species viability in the region over the long term. Mitigation Measure 3.4-1 would result in preservation of nesting and foraging habitat in a coordinated and interconnected SSHCP reserve system that considers the species requirements at a regional scale, rather than project-by-project, and presents a coordinated conservation strategy to maintain species viability in the region over the long term. The SSHCP conservation strategy includes surveys, nest buffers, and monitoring that would meet the requirements for CDFW to issue an incidental take permit for the project.

The specific Avoidance and Minimization Measures required to obtain coverage for the project under the SSHCP would be determined through the permitting process. Avoidance and Minimization Measures that may apply to the project include WBO-1 through WBO-7, which require burrowing owl surveys to map burrows, pre-construction surveys, specific avoidance measures to follow in the breeding and non-breeding season, construction monitoring requirements, and passive relocation. Avoidance and Minimization Measures specific to Swainson's hawk include: SWHA-1, which requires surveys for nesting sites within 0.25-mile of in modeled habitat; SWHA-2, which outlines pre-construction survey requirements; and SWHA-3, SWHA-4, and SWHA-5 related to establishing nest buffers, buffer monitoring, and nest tree avoidance. White-tailed kite and loggerheaded shrike are addressed through Avoidance and Minimization Measures RAPTOR-1 through RAPTOR-4, which layout requirements for nesting site surveys, pre-construction surveys, establishing buffers, and monitoring. Finally, special-status SSHCP covered plant species would be addressed through Avoidance and Minimization Measures PLANT-1 and PLANT-2 (if PLANT-1 surveys are positive). While the project area is within 1 mile of the Mather Core area, because suitable habitat for Orcutt grasses is not present, the SSHCP Orcutt-grass specific Avoidance and Minimization Measures are not applicable.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

No Impact. There are no riparian habitat or other sensitive natural communities within the boundaries of the project site. As such, implementation of the project would have no effect on these resources.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less-than-significant Impact. Based on a site survey conducted by Madrone Ecological Consulting, there are no wetlands or aquatic features within the boundaries of the project site. However, the SSHCP baseline land cover map shows that three small wetlands historically occurred in the area. Based on the results of an October 2021 field visit and on updated existing conditions mapping, two of these wetlands are in an area that has been graded and filled, and the third feature is in an area has also been graded but has reverted to valley grassland (see Figure 3-2). No evidence of ponding or saturated soils were present at the time of the October 2021 survey. The SSHCP authorization process requires review of the baseline land cover mapping and existing land cover documentation and will assign mitigation for impacts based on the confirmed land covers present at the time of authorization. If during the SSHCP review and authorization process any aquatic resources are determined to be present, the project will be required to comply with the mitigation requirements for aquatic resource land cover impacts. Implementation of the SSHCP-required mitigation would reduce any potential impacts to aquatic resources to a less than significant level.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. The Project site does not serve as a corridor between habitat areas, and upland habitat development within an infill site would not substantially interfere with movement of terrestrial or aquatic animals or with use of an established migratory corridor or native wildlife nursery site.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. There are no trees or other biological resources protected under local ordinances present within the boundaries of the project site nor would the project require the removal of any trees. As such, implementation of the project would not conflict with an adopted tree preservation ordinance or policy, and no other policies or ordinances related to biological resources are applicable to the project.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less than Significant with Mitigation Incorporated. The project site is within the SSHCP Plan Area and within the UDA. The proposed development (i.e., Urban Development in the UDA) is a covered activity under the SSHCP. Therefore, the project would not conflict with the provisions of the adopted SSHCP if all of the appropriate Avoidance and Minimization Measures are implemented as part of the project.

Mitigation Measure 3.4-1: Obtain coverage for the Project under the SSHCP

Implement Mitigation Measure 3.4-1 above.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-1 would ensure that the project would be consistent with the SSHCP. The City of Rancho Cordova, as an implementing party of the SSCHP, would process the SSHCP permit. During this process, the City would review the Aquatic Resources Assessment (Appendix B) performed for the site to evaluate the land cover analysis (and proposed elimination of wetlands from the mapping of the project site) and determine the final list of Avoidance and Minimization Measures required to permit the project. This impact would be less than significant.

3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources.				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Substantially disturb human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

3.5.1 Environmental Setting

The City's General Plan Cultural and Historic Resources Element lists the city's identified historic resources and properties. Most of the prehistoric sites are located along the American River and creeks, and some of the sites are known to contain human remains (City of Rancho Cordova 2006a). General Plan Draft EIR Figure 4.11-1 identifies that there are no archaeological or culturally sensitive areas in the project area (City of Rancho Cordova 2006b).

A cultural resources literature search was conducted in November 2021 by the North Central Information Center of the California Historical Resources Information System at California State University, Sacramento. The records search was conducted to determine if prehistoric or historic cultural resources had been previously recorded within the project site, the extent to which the project site had been previously surveyed, and the number and type of cultural resources within a 0.25-mile radius of the project area.

The North Central Information Center records search indicated that two prior cultural resource studies have been completed within the project area, and an additional nine studies have been completed within the 0.25-mile records search radius. The records search also revealed that one cultural resource (Folsom Mining District-P-34-000335H) has been previously recorded within the project area, and one cultural resource has been recorded within the 0.25-mile records search radius.

Resource P-34-000335H consists of the Folsom Mining District, which was originally recorded in 1969. The District has undergone various updates which have added mining features including several huge dredge fields, massive tailings piles, buildings, mines, tunnels, canals, camps, cemeteries, and other related features. In 1995, it was recommended that some of the features and dredge fields within the District be eligible under National Register of Historic Places (NRHP) and California Register of Historic Resources (CRHR) criteria.

An intensive pedestrian survey of the project area was conducted on December 27, 2021. During the survey, all visible ground surfaces were carefully examined for cultural material (e.g., flaked stone tools, tool-making debris, stone milling tools, or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), and historic-era debris (e.g., metal, glass, ceramics). Ground disturbances (e.g., animal burrows, dirt roads) were also visually inspected. No new cultural resources were identified within the project area during the field survey. Further, no indication of subsurface archaeological remains was noted in areas of past ground-disturbance.

A portion of the Folsom Mining District (i.e., tailings piles) falls within the project site. The tailings are a contributor to the District (NRHP/CRHR criterion A/1 and C/3); however, the portion of the tailings in the project area has lost integrity through past grading and disturbance. Additionally, the surrounding urbanized development visually detract from any integrity of setting, feeling, or association (NIC 2022).

3.5.2 Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

No Impact. Historical resources include standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges). "Historical resource" is a term with a defined statutory meaning (PRC Section 21084.1; determining significant impacts to historical and archaeological resources is described in the State CEQA Guidelines, Sections 15064.5[a] and [b]). No historic structures were identified within the project site during records search review or surveys of the project site (NIC 2022). Thus, the project would not damage or otherwise change the significance of historical resources.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than Significant with Mitigation Incorporated. As described above, a portion of the Folsom Mining District (i.e., tailings piles) falls within the project site. The tailings serve as a contributor to the District under CRHR criterion A/1 and C/3; however, they have lost integrity through past grading and disturbance in the area. Therefore, implementation of the project would not damage the portion of the tailings, because the portion within the project site has already lost integrity. Impacts to the Folsom Mining District (P) would be less than significant.

As previously discussed, no indication of subsurface archaeological remains was present during an intensive pedestrian survey of the project area. As such, the potential for discovery of archaeological material is estimated to be low (NIC 2022). Nevertheless, the possibility remains that archaeological materials could be encountered during construction-related ground disturbing activities. This impact would be potentially significant.

Mitigation Measure 3.5-1: Protection of Known and Unknown Archaeological Resources

The following shall be implemented during any ground-disturbing activities associated with project construction:

- In the event that unknown buried cultural deposits (e.g., prehistoric stone tools, milling stones, historic glass bottles, foundations, cellars, privy pits) are encountered during project construction, all ground-disturbing activity within 50 feet of the resources shall be halted and a qualified professional archaeologist (36 Code of Federal Regulations [CFR] 61) and appropriate Native American tribal representative shall be notified immediately and retained to assess the significance of the find. Construction activities could continue in other areas.
- If the find is determined to be significant by the qualified archaeologist or Native American tribe (i.e., because it is determined to constitute either a historical resource or a unique archaeological resource), the archaeologist shall develop appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include but would not necessarily be limited to preservation in place, archival research, subsurface testing, or contiguous block unit excavation and data recovery.
- If the qualified archaeologist determines the archaeological material to be Native American in nature, the City of Rancho Cordova shall contact the culturally affiliated Native American tribe for their input on the preferred treatment of the find.

Significance after Mitigation

Implementation of Mitigation Measure 3.5-1 would reduce impacts to a less-than-significant level by requiring cessation of work, implementation of proper data recovery, and/or preservation procedures upon discovery of previously unknown resources.

c) Substantially disturb human remains, including those interred outside of formal cemeteries?

Less than Significant. Based on documentary research, no evidence suggests that any prehistoric or historic-era marked or un-marked human interments are present within or in the immediate vicinity of the project site. However, the location of grave sites and Native American remains can occur outside of identified cemeteries or burial sites. Therefore, there is a possibility that unmarked, previously unknown Native American or other graves could be present within the project site and could be uncovered by project-related construction activities.

California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Sections 7050.5 and PRC Section 5097.

These statutes require that, if human remains are discovered during any construction activities, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the Sacramento County coroner and Native American Heritage Commission (NAHC) shall be notified immediately, in accordance with to PRC Section 5097.98 and Section 7050.5 of California's Health and Safety Code. If the remains are determined by NAHC to be Native American, the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the archaeologist, the NAHC-designated Most Likely Descendant, and the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94.

The City's General Plan, Action CHR 1.3.2, states the City will incorporate the following condition in applicable permits for all discretionary projects:

> The Planning Department shall be notified immediately if any human remains are uncovered and all construction must stop in vicinity of the find. The Planning Division shall notify the County Coroner according to Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed.

Compliance with California Health and Safety Code Sections 7050.5 and PRC Section 5097, as directed by the conditions of approval required through application of General Plan Action CHR 1.3.2, would provide an opportunity to avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered.

3.6 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy.				
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

3.6.1 Environmental Setting

California relies on a regional power system composed of a diverse mix of natural gas, petroleum, renewable, hydroelectric, and nuclear generation resources:

- Natural gas: Almost two-thirds of California households use natural gas for home heating, and about half of California's utility-scale net electricity generation is fueled by natural gas (EIA 2021).
- Petroleum: Petroleum products (gasoline, diesel, jet fuel), which are consumed almost exclusively by the transportation sector, account for almost 99 percent of the energy used in California by the transportation sector, with the rest provided by ethanol, natural gas, and electricity (Bureau of Transportation Statistics 2017). Between January 2007 and May 2016, an average of approximately 672 billion gallons of gasoline were purchased in California (California State Board of Equalization 2016). Gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet specific formulations required by the CARB (EIA 2021).
- Electricity and renewables: The California Energy Commission estimates that 34 percent of California's retail electricity sales in 2018 was provided by Renewable Portfolio Standard-eligible renewable resources (EIA 2021).
- Alternative fuels: Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many alternative transportation fuels (e.g., biodiesel, hydrogen, electricity). Use of alternative fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, 2017 Scoping Plan).

Electricity service in the City of Rancho Cordova is provided by Sacramento Municipal Utility District and natural gas service is provided by Pacific Gas and Electric Company.

3.6.2 Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant. The proposed project would increase energy use from existing conditions from both construction and operational activities.

Construction

Energy would be required to operate and maintain construction equipment and transport construction materials. The one-time energy expenditure required to construct the physical buildings and infrastructure associated with the

Project would be nonrecoverable. Most energy consumption would result from operation of off-road construction equipment and on-road vehicle trips associated with commutes by construction workers and haul trucks trips.

Table 3.6-1 summarizes the levels of energy consumption associated with the construction of the project by construction year. Most of the construction-related energy consumption would be associated with off-road equipment and the transport of equipment and waste using on-road haul trucks for all phases of construction. An estimated 91,194 gallons of gasoline and 41,964 gallons of diesel fuel would be used during construction of the project (see Appendix D).

Table 3.6-1 Construction Energy Consumption

Year	Diesel (Gallons)	Gasoline (Gallons)
2022	14,524	5,372
2023	18,115	37,039
2024	1,377	36,759
2025	7,948	12,024
Total	**41,964**	**91,194**

Notes: Gasoline gallons include on-road gallons from worker trips. Diesel gallons include off-road equipment and on-road gallons from worker and vendor trips.

Source: Calculations by Ascent Environmental in 2022.

The energy needs for project construction would be temporary and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Associated energy consumption would be typical of that associated with commercial and residential projects of this size in an urban setting. Automotive fuels would be consumed to transport people to and from the project site. Energy would be required for construction elements and transport construction materials. The one-time energy expenditure required to construct the physical infrastructure associated with the project would be nonrecoverable. There is no atypical construction related energy demand associated with the proposed project. Non-renewable energy would not be consumed in a wasteful, inefficient, and unnecessary manner when compared to other construction activity in the region.

Operation

The project would increase electricity consumption in the region relative to existing conditions. However, the new facilities would, at a minimum, be built to 2019 Title 24 Building Energy Efficiency Standards, which are 53 percent more efficient than 2016 Standards (CEC 2018). In addition, all buildings (residential and non-residential) would participate in SMUD's SolarShares program, increasing the amount of clean/renewable energy sources compared to projects that do not participate in the SolarShares program. Further, the residential buildings would be electric-only and the natural gas use associated with the community center would be limited to two outdoor fire pits, cooking appliances (i.e., grills), and heating for the pool/spa; thus, natural gas use would be minimal. Table 3.6-2 summarizes the levels of energy consumption associated with the operation of the project for the first full year (2026) of operations compared to the existing land uses.

Table 3.6-2 Operational Energy Consumption

Energy Type	Energy Consumption	Units
Electricity	1,597	MWh/year
Natural Gas	14,081	Therms/year
Gasoline	196,025	gal/year
Diesel	6,770	gal/year

Notes: MWh/year = megawatt-hours per year; gal/year = gallons per year.

Source: Calculations by Ascent Environmental in 2022.

Operation of the project would be typical of residential and commercial uses requiring electricity for lighting, climate control, kitchen facilities, and miscellaneous appliances. Title 24 Building Energy Efficiency Standards would be integrated into the project to reduce the projects energy demands. Furthermore, as discussed in Section 3.17, "Transportation", the project is in an area where the VMT is lower than 15 percent of the regional household average.

The net fuel consumption associated with project-related vehicle trips would not be considered wasteful, inefficient, or unnecessary in comparison to other similar developments in the region. State and federal regulations regarding fuel efficiency standards for vehicles in California are designed to reduce wasteful, inefficient, and unnecessary use of energy for transportation

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. Relevant plans that pertain to the efficient use of energy include the Energy Efficiency Action Plan, which focuses on energy efficiency and building decarbonization (CEC 2019); as well as the City's General Plan, which seeks to reduce per capita energy consumption through education and development of energy efficiency buildings.

As discussed in Impact 3.6-1, although implementation of the project has the potential to result in the overall increase in consumption of energy resources during construction and operation of new buildings and facilities, implementation of the project would ensure various energy conservation and generation features would be incorporated into new development including the installation of renewable energy features and the installation of energy efficient appliances and features, which would align with the Energy Efficiency Action Plan and City's General Plan. Therefore, the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

3.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils.				
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

3.7.1 Environmental Setting

According to the City of Rancho Cordova General Plan EIR, there are no known active faults or Alquist-Priolo Fault Zones in Sacramento County (City of Rancho Cordova 2006b). Based on mapping by California Geologic Survey, the nearest Alquist-Priolo Fault Zones include the Cordelia and Green Valley Faults, over 50 miles west of the project site (CGS 2021). The nearest active fault (i.e., faults with activity within the last 10,000 years) is the Dunnigan Hills fault, approximately 40 miles northwest of the project site. The project site is within an area that can expect to experience ground motion of low severity (City of Rancho Cordova 2006b).

According to the Rancho Cordova General Plan EIR, most soils in the city are the result of alluvial deposits, or river and lake deposits on various geomorphic surfaces. The majority of soil units within the City have low to moderate water holding capacities, slight to moderate erosion potential, very low to medium runoff rates, and high shrink-swell characteristics (City of Rancho Cordova 2006b).

The geology of the project site and surrounding area is characterized by dredge spoil sediments composed of gravels, cobbles, and boulders (CSS Environmental Services, Inc. 2020a). The site was dredged for gold recovery, resulting in gravel and cobble ridges, commonly referred to as "tailings windrows," and clays and silts were washed overboard and deposited in ponds between the ridges, referred to as "slickens deposits." Soil conditions are not uniform due to past dredging operations, and include potentially compressible clays and silts in the former slickens ponds as well as potential for buried undocumented debris. The project site slopes gently from east to west, but is generally flat. The depth to groundwater at the project site is expected to range from 50 to 100 feet below ground surface (bgs) (MPE 2020).

Based on the soil characteristics, flat topography, depth to groundwater, and distance to active faults, there is low potential for geologic hazards from landslides, steep areas, rock falls, mud flows, liquefaction, and expansive soils at the project site. Review of recent geologic maps and data finds that the Project Area is underlain by Middle-to-Late Pleistocene (450 to 130 thousand years ago) alluvium of the Riverbank Formation. The Riverbank Formation is well represented by important paleontological remains. According to the Cultural and Paleontological Assessment prepared for the Residences Project, University of California Museum of Paleontology records indicate that no unique geologic features, fossil-bearing strata, or paleontological sites have been previously recorded within or near the Residences project site. Additionally, no paleontological resources of any kind were observed within the Residences project site during the field survey undertaken for the assessment (Natural Investigations Company 2022).

3.7.2 Discussion

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)

No Impact. As discussed in Section 3.7.1, the project site is not within an Alquist-Priolo Fault Zone and is located over 50 miles east of the nearest Alquist-Priolo Fault Zones (CGS 2021). Therefore, the project would not cause substantial adverse effects involving rupture of a known earthquake fault.

ii) Strong seismic ground shaking?

Less than Significant The California Supreme Court decision in California Building Industry Association v. Bay Area Air Quality Management District has resulted in changes to CEQA with regard to the effects of existing environmental conditions (such as seismic hazards) on a project's future users or residents. The effects of the environment on a project are generally outside the scope of CEQA unless the project would exacerbate these conditions, as concluded by the California Supreme Court (see California Building Industry Association v. Bay Area Air Quality Management District [2015] 62 Cal.4th 369, 377 ["we conclude that agencies generally subject to CEQA are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users."]). Changes to the State CEQA Guidelines to reflect this decision were adopted on December 28, 2018. CEQA cannot be used by a lead agency to require a developer or other agency to obtain an EIR or implement mitigation measures solely because the occupants or users of a new project would be subjected to the level of hazards specified.

As described in Section 3.7.1, the project site is not within an active fault zone; however, earthquakes in the region have potential to cause seismic ground shaking of low severity at the project site. Construction and building design of the project is subject to the City's Building Code (Chapter 16.04 of the Rancho Cordova Municipal Code), which incorporates the 2019 California Building Code and 2018 International Building Code standards. The City's Building Code requires implementation of seismic design standards in new development projects to reduce seismically-induced building damage and public safety risks. Project construction and operation would not create new seismic events or exacerbate existing seismic hazards, because the improvements would involve limited excavation that would not alter seismic and fault conditions in the region. Therefore, the project would not cause substantial adverse effects from strong seismic ground shaking.

iii) Seismic-related ground failure, including liquefaction?

Less than Significant. Liquefaction is the process in which water is combined with unconsolidated soils, generally from ground motion and pressure, which causes the soils to behave like quicksand. Liquefaction potential is determined from a variety of factors, including soil type, soil density, depth to the groundwater table, and the duration and intensity of ground shaking. Liquefaction is most likely to occur in deposits of water-saturated alluvium or areas of considerable artificial fill. Other types of seismic-related ground failure include ground lurching, differential settlement, and lateral spreading.

The potential for liquefaction and other seismic-related ground failure is considered low because the depth to groundwater is greater than 50 feet bgs and the distance to the nearest active fault is over 40 miles from the project site. The site is not located within a State Designated Seismic Hazard Zone for liquefaction (MPE 2020). Therefore, the project would not cause substantial adverse effects from seismic-related ground failure, including liquefaction.

iv) Landslides?

No Impact. The project site is an infill property surrounded by urban development. The potential for landslides to occur is negligible because the topography is generally flat and there are no steep slopes within or adjacent to the project site. Therefore, the project would not cause substantial adverse effects from landslides.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant. Soil erosion refers to the process by which soil or earth material is loosened or dissolved and removed from its original location. Erosion can occur by varying processes and may occur in the project site where bare soil is exposed to wind or moving water (both rainfall and surface runoff). The processes of erosion are generally a function of material type, terrain steepness, rainfall or irrigation levels, surface drainage conditions, and general land uses.

All projects that result in a disturbance area of more than 1 acre (43,560 square feet [sq. ft.]) are required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). The Construction General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP), which BMPs for erosion and sediment control. The Construction General Permit is issued and enforced by the appropriate Regional Water Quality Control Board (RWQCB). The project site is within the jurisdiction of the Central Valley RWQCB and the project would be subject to all existing regulations associated with the protection of water quality, including erosion and sediment control.

Project-related construction activities that include ground disturbance, such as excavation, grading, and trenching would increase the potential for erosion to occur. The project would involve the disturbance of 22.9 acres of soil; therefore, the project must comply with the provisions of the NPDES Construction General Permit issued by the Central Valley RWQCB. The project would require preparation of a SWPPP with BMPs to control erosion. These requirements are consistent with the land grading and erosion control requirements outlined in Chapter 16.44 of the Rancho Cordova Municipal Code. Furthermore, the Project would comply with the SMAQMD Rule 403 (Fugitive Dust), which requires daily watering of unpaved areas to stabilize soil and prevent wind erosion events.

Once operational, the project site would be developed with approximately 15.2 acres of impervious area (70 percent of the total area), including buildings, asphalt parking lots, and concrete walkways (RSC Engineering, Inc. 2021a: Appendix C). As described in the Preliminary Stormwater Quality Report, the project would be designed to meet the stormwater quality and low impact development (LID) requirements of the Stormwater Quality Design Manual for the Sacramento Region (RSC Engineering, Inc. 2021a). Proposed stormwater features, which include stormwater planter facilities, underground stormwater treatment devices, and disconnected roof drain systems, would reduce erosion potential from operational runoff. Furthermore, landscaping would reduce erosion potential in unpaved areas. With adherence to applicable rules and regulations and implementation of BMPs and LID practices, the project would result in a less-than-significant impact related to erosion and loss of topsoil.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than Significant. Refer to Sections 3.7.2(a)(iii) and (iv) above. The project site is underlain with dredge spoil sediments composed of gravels, cobbles, and boulders (CSS Environmental Services, Inc. 2020a). The potential for on- or off-site landslides, lateral spreading, liquefaction, or collapse is considered low because the topography of the project site and surrounding area is generally flat, the depth to groundwater is greater than 50 feet bgs, and the distance to the nearest active fault is over 40 miles from the project site.

The soils in the former slickens ponds are not considered suitable for support of proposed improvements and engineered fill, due to the risk of excessive settlement associated with the low-density soils. Deep deposits of clay and silt exist beneath proposed building footprints could result in settlement in response to fill and structural loads. Therefore, slickens materials will require complete removal and recompaction. However, these soils would be suitable for use in engineered construction, if they are excavated, mixed with on-site gravels and cobbles, moisture conditioned and properly compacted. The project would include over excavation of soils within the building pads and placement of engineered fill to improve the uniformity of support and bearing capacity of the native soils, and to reduce the risk of differential settlement. The specific requirements will be developed in a design-level geotechnical investigation (MPE 2020).

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

Less than Significant. Expansive soils are typically associated with fine-grained clayey soils that have the potential to shrink and swell with repeated cycles of wetting and drying. Laboratory testing of the on-site clays indicates they possess a medium expansion potential when tested in accordance with the ASTM D4829 test method. These soils experience volume changes with varying soil moisture contents and are capable of exerting moderate expansion pressures upon foundations and concrete slabs-on-grade, including sidewalks (MPE 2020).

The Residences Project would be subject to California Building Code standards, which include common engineering practices requiring special design and construction methods that reduce or eliminate potential expansive soil related impacts. Therefore, substantial risks to life or property would not occur.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Sacramento Area Sewer District (SacSewer~~SASD~~) provides sewer services within the City and operates utility lines within the roadways adjacent to the project site. In addition, the project site is within the service area of Sacramento Regional County Sanitation District (Regional San), which provides regional wastewater conveyance and treatment services. Wastewater within the Regional San service area is treated at the Sacramento Regional Wastewater Treatment Plant (SRWTP) in the City of Elk Grove. The Residences Project would be served by SacSewer~~SASD~~ and Regional San and does not propose the use of septic tanks or alternative waste water disposal

systems. Therefore, there would be no impact related to soils incapable of supporting the use of septic tanks or alternative waste water disposal systems.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant. As described in Section 3.7.1, no unique geologic features, fossil-bearing strata, or paleontological sites have been previously recorded or observed within or near the project site. Furthermore, excavation during project construction would occur in an area overlain by thick deposits of mining tailings and associated soils. The historic mining activities have so severely affected the condition of soils on the project site, the potential to encounter intact Pleistocene deposits is low (Natural Investigations Company 2022). Although unlikely, ground-disturbing activities during project construction may result in the unanticipated discovery of paleontological resources. The City's General Plan, Action CHR 1.3.2, requires that the following condition be incorporated in permits for all discretionary projects:

> The Planning Department shall be notified immediately if any cultural resources (e.g., prehistoric or historic artifacts) or paleontological resources (e.g., fossils) are uncovered during construction. All construction must stop in vicinity of the find and an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology or a paleontologist shall be retained to evaluate the finds and recommend appropriate action.

The project would be required to comply with all permit conditions imposed by the City, including the above procedures to follow in the event of an unanticipated discovery of paleontological resources; therefore, the project would not destroy a unique paleontological resource or site or unique geologic feature.

3.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Greenhouse Gas Emissions.				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.8.1 Environmental Setting

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with on-road and off-road transportation, industrial/manufacturing, electricity generation by utilities and consumption by end users, residential and commercial on-site fuel usage, and agriculture and forestry. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (IPCC 2014:5).

Climate change is a global problem. GHGs are global pollutants because even local GHG emissions contribute to global impacts. GHGs have long atmospheric lifetimes (one to several thousand years) and persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any particular GHG molecule is dependent on multiple variables and cannot be determined with any certainty, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration (IPCC 2013:467).

GREENHOUSE GAS EMISSION SOURCES AND SINKS

As discussed previously, GHG emissions are attributable in large part to human activities. CO_2 is the main byproduct of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices, organic material decomposition in landfills, and the burning of forest fires (Black et al. 2017). Nitrous oxide emissions are largely attributable to agricultural practices and soil management. CO_2 sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water); respectively, these are the two of the most common processes for removing CO_2 from the atmosphere.

REGULATORY SETTING

Statewide GHG Emission Targets and the Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the state government for approximately two decades (State of California 2018). GHG emission targets established by the state legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). EO S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. EO B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets align with the scientifically established levels needed globally to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (UN 2015).

The 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by the CARB, outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017b). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). The State has also passed more detailed legislation addressing GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption. In May 2022, CARB released the *Draft 2022 Scoping Plan Update*; however, at the time of preparing this checklist, CARB has not adopted the final version of this update.

Sacramento Metropolitan Air Quality Management District

SMAQMD is the primary agency responsible for addressing air quality concerns in Sacramento County–its role is discussed further in Section 3.2, "Air Quality." SMAQMD also recommends measures for analyzing project-generated GHGs in CEQA analyses and offers multiple potential GHG reduction measures for land development projects. SMAQMD developed thresholds of significance to provide a uniform scale to measure the significance of GHG emissions from land use and stationary source projects in compliance with CEQA, SB 32, and the 2017 Scoping Plan. SMAQMD's goals in developing GHG thresholds include ease of implementation, use of standard analysis tools, and emissions mitigation consistent with SB 32 (SMAQMD 2020b).

The City of Rancho Cordova is currently developing its Climate Action Plan in alignment with state GHG emission reduction goals. Therefore, the assessment of GHG emissions in this analysis is based on guidance from SMAQMD. In its *2020 Greenhouse Gas Thresholds for Sacramento County* Justification Report, SMAQMD outlines the consistency between its thresholds of significance and the targets of the 2017 Scoping Plan. SMAQMD prepared an inventory for Sacramento County in 2030 and developed local emission reduction targets by sector in line with the local reductions needed to meet the goals of SB 32 and the 2017 Scoping Plan. In its Justification Report, SMAQMD states that to "demonstrate consistency with the GHG targets by sector for new developments…project proponents shall commit to a menu of best management practices" (SMAQMD 2020b:39). These best management practices (summarized below) are intended to apply to all new land use development projects and are sufficient to mitigate a project's long-term, operational emissions to the degree that it would not conflict with the long-term goals of the 2017 Scoping Plan and SB 32.

Based on SMAQMD's guidance, which includes a tiered approach to determining project significance, the project would result in a cumulatively considerable contribution to climate change if it would:

Construction

Result in construction emissions that exceed 1,100 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year.

Operation

Be inconsistent with the 2017 Scoping Plan by not implementing SMAQMD GHG reduction measures or equivalent on/off site mitigation. The following tiered approach shall be used to determine consistency:

- Tier 1 GHG Reduction Measures
  - Projects shall be designed and constructed without natural gas infrastructure.
  - Projects shall meet the current CalGreen Tier 2 electric vehicle (EV) charging standards except all EV capable spaces[1] shall instead be EV ready[2].
  - Projects that exceed 1,100 $MTCO_2e$ after implementation of Tier 1 GHG reduction measures must implement Tier 2 GHG reduction measures.
- Tier 2 GHG Reduction Measures
  - Residential projects shall achieve a 15 percent reduction in VMT per resident and office projects shall achieve a 15 percent reduction in VMT per worker compared to existing average VMT for the county, and retail projects shall achieve no net increase in total VMT to show consistency with the Office of Planning and Research (OPR) SB 743.

3.8.2 Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than significant. GHG emissions associated with the project would be generated during construction and operation, discussed separately below.

Construction

Project-related construction activities would result in the generation of GHG emissions from the use of heavy-duty off-road construction equipment, delivery trucks associated with materials transport, and vehicle use during worker commute during construction. As indicated in Section 3.3, "Air Quality," of this checklist, the project would comply with SMAQMD's construction BMPs for exhaust emissions control including, reducing idling to no more than 5 minutes and certification of compliance for CARB In-Use Off-Road Diesel-Fueled Fleets Regulation. Project-related construction emissions are confined to a relatively short period (i.e., 36-months) in relation to the overall life of the project and would be considered temporary. Table 3.8-1 provides a summary of the total construction-related emissions that would occur as a result of new land uses.

Table 3.8-1 Construction-Generated Greenhouse Gas Emissions

Construction Year	Total GHG $MTCO_2e$ per Year
2022	284
2023	663
2024	660
2025	243
SMAQMD Threshold of Significance	1,100

Notes: Totals may not add due to rounding.

$MTCO_2e$ = metric tons of carbon dioxide equivalent; GHG = greenhouse gas.

Source: Modeled conducted by Ascent Environmental in 2022.

[1] 2019 California Green Building Standards Code (CALGreen, Title 24, Part 11) requires EV capable parking spaces to install a "raceway" (the enclosed conduit that forms the physical pathway for electrical wiring to protect it from damage) and adequate panel capacity to accommodate future installation of a dedicated branch circuit and charging station(s).

[2] 2019 CALGreen, Title 24, Part 11 requires EV ready parking spaces to be equipped according to EV capable standards plus the installation of dedicated branch circuit(s) (electrical pre-wiring), circuit breakers, and other electrical components, including a receptacle (240-volt outlet) or blank cover needed to support future installation of one or more charging stations.

As shown in Table 3.8-1 the project's emissions would not result in an exceedance of the SMAQMD construction threshold and would not result in a cumulatively considerable increase in GHG emissions.

Operation

Operation of the project would result in mobile-source GHG emissions from vehicle trips (i.e., project-generated VMT), area-source emissions from the operation of landscape maintenance equipment, energy use emissions from consumption of electricity and natural gas, water-related energy consumption associated with water use and the conveyance and treatment of wastewater, and waste-generated emissions from the transport and disposal of solid waste. Regarding building-related energy use, the modeling assumed that all buildings would be electric-only, with the exception of natural gas use for up to two outdoor fireplaces, outdoor grills, heating the pool/spa associated with the club houses, and cooking appliances at the proposed restaurant. Table 3.8-2 below summarizes the project's operational emissions for the buildout year of 2026. Based on the proposed land uses and using project-specific information where available (e.g., traffic study), operational emissions were estimated to be 2,322 MTCO2e/year.

Table 3.8-2 Unmitigated Operational Greenhouse Gas Emissions

Emissions Source	Total $MTCO_2e$ per Year
Area	7
Electricity	404
Natural Gas	76
Mobile (Vehicular)	1,616
Waste	182
Water	37
Total	**2,322**
SMAQMD Screening Level Threshold	**1,100**

Notes: Totals may not add due to rounding.

$MTCO_2e$ = metric tons of carbon dioxide equivalent; GHG = greenhouse gas.

Source: Modeled conducted by Ascent Environmental in 2022.

As explained above, SMAQMD uses a two-tiered approach to determining consistency with state targets intended to reduce the environmental impacts of GHG emissions. To satisfy Tier 1, projects should not include natural gas use and must meet the current CalGreen Tier 2 EV charging standards except all EV capable spaces shall instead be EV ready. SMAQMD determined that by not eliminating natural gas from new development the project would not be consistent with the reduction targets of the 2017 Scoping Plan. Additionally, development is required to support zero emissions vehicles to help achieve 2017 Scoping Plan reduction targets. To be consistent with the 2017 Scoping Plan, emissions from natural gas consumption must be mitigated and the project must ensure that it can be converted to all-electric in the future. The project also needs to ensure that CalGreen EV ready spaces are installed, or emissions must be mitigated off-site. The following project-design features would suffice SMAQMD's Tier 1 GHG Reduction Measure, as demonstrated below.

Landscape and Shading

- The project includes 804 new tree plantings

Bicycle Parking/Storage

- The project will exceed CalGreen bike parking standards for short- and long-term bike parking/storage

Building Energy

- All project buildings will participate in SMUD's SolarShare program
- All non-residential buildings will be designed with electrical capacity sufficient to support future electrification
- All new structures will include cool roofs

- At least 25 percent of paved area will have an albedo of no less than 0.25

EV Charging

- At least 12 EV Chargers
- At least 218 EV Ready Stalls (23 percent of total)

Considering the above project features, GHG reductions were applied as credits to the project for measures that are not required by other existing local or State law. Specifically, regarding EV charging, the project would meet and exceed the EV-ready SMAQMD requirement by including 218 EV Ready Stalls and at least 12 EV chargers. GHG reductions associated with the 12 chargers were estimated and applied to the project. Regarding building energy, participation in SMUD's SolarShares program and considering SMUD's 2030 carbon neutrality goals, electricity- GHG emissions would become zero in the future. Last, the inclusion of 804 trees on the project site would result in GHG reductions in the form of a credit from natural sequestration capacity. Table 3.8-3 summarizes these onsite GHG reductions applied to the project.

Table 3.8-3 Adjusted Operational Greenhouse Gas Emissions

Emissions Source	Total $MTCO_2e$ per Year
Area	7
Electricity	404
Natural Gas	76
Mobile (Vehicular)	1,616
Waste	182
Water	37
GHG Reductions	
Electricity	-404
EV Chargers (12)	-59
Sequestration	-28
Total Onsite Reductions	-491
Adjusted Project Total GHG Emissions	**1,831**

Notes: Totals may not add due to rounding.

$MTCO_2e$ = metric tons of carbon dioxide equivalent; GHG = greenhouse gas.

Source: Modeled conducted by Ascent Environmental in 2022.

Therefore, although the project would include use of natural gas, the modeling illustrates that project features would offset the emissions associated with this use. Therefore, Tier 1 GHG Reduction Measures would be satisfied.

Tier 2 reduction measures are triggered when projects exceed the 1,100 $MTCO_2e$ screening threshold after implementation of Tier 1 GHG reduction measures. Because the project emissions would be 1,831 $MTCO_2e$ after implementation of Tier 1 GHG reduction measures (see Table 3.8-3), the Tier 2 threshold also applies. Tier 2 is demonstrated to be achieved by adherence to the local VMT guidance for demonstrating consistency with SB 375. The project is located in a VMT efficient area (in an area with at least 15 percent below the base year regional average household VMT per capita). This was determined based on screening maps prepared by the City using the focused version of SACOG's SACSIM19 regional model. Therefore, no further action would be required to achieve consistency with the Tier 2 GHG Reduction Measure.

Because the project would include EV-Ready stalls that exceed CalGreen requirements and would be designed to allow the future electrification of non-residential buildings, the project would be consistent long-term climate goals outlined in the 2017 Scoping Plan and justified in SMAQMD's CEQA guide, as summarized above under the heading "Sacramento Metropolitan Air Quality Management District." The inclusion of onsite EV charges and 804 trees would

offset emissions associated with natural gas. Last, the project was identified as being within a VMT efficient area consistent with SMAQMD Tier 2 GHG Reduction Measure and, therefore, would be consistent with the OPR SB 743 technical advisory de minimis criteria for VMT (Lum, pers. comm. 2022).

The 2017 Scoping Plan and SB 32 establish target emission levels under the presumption that achieving these targets through GHG emissions reduction would avoid or substantially lessen significant impacts on the environment. Based on the evidence provided in SMAQMD's Justification Report linking the application of best management practices in new development to consistency with the 2017 Scoping Plan, the project's consistency with SMAQMD's Tier 1 and Tier 2 GHG Reduction Measures indicates that it would not conflict with the State's 2017 Scoping Plan. Moreover, consistency with SMAQMD's Tier 1 and Tier 2 GHG Reduction Measures would result in GHG emission levels that do not have a significant impact on the environment. This impact would be **less than significant**.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

See response in item (a) above.

3.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hazards and Hazardous Materials.				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

3.9.1 Environmental Setting

PHASE I ENVIRONMENTAL SITE ASSESSMENT RESULTS

Phase I Environmental Site Assessments (ESA) were completed for the 7.28-acre property encompassing APNs 072-068-065 and 072-068-068 (CSS Environmental Services, Inc. 2020a) and for the 14.54-acre property encompassing APNs 072-026-051, 072-026-054, and 072-026-056 (CSS Environmental Services, Inc. 2020b). The Phase I ESAs were performed to evaluate whether recognized environmental conditions (REC) exist at the properties. A REC is defined by the American Society for Testing and Materials as the "presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material

threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property."

No evidence of a REC was identified in connection with the properties. However, the following environmental conditions were identified:

- Land use restrictions have been recorded on APN 072-026-056.
- Buried inert waste, concrete, and other debris were found on at least one parcel, and may need to be removed if underground construction activities are planned.
- Two offsite properties that are greater than 0.25-mile from the Residences project site (the Former Purity Oil Sales/Delta Gunite Site and the Aerojet General Corporation Site) have plumes of groundwater contamination that present the risk of creating a REC at the Residences project site. The groundwater contamination originating from these properties has potential to migrate to the subject property, potentially degrading groundwater quality and limiting the future use of groundwater.
- Soils impacted with oils were identified on APNs 072-026-054 and 072-026-056, and appropriate removal/remedial actions have been completed. If previously unidentified contamination is discovered at the property, additional assessment, investigation, and/or remediation may be required.

HAZARDOUS MATERIALS SITES

The parcel in the northwest corner of the project site (APN 072-026-056) is listed as a voluntary cleanup site on the Department of Toxic Substances Control (DTSC) EnviroStor database (DTSC 2022). The Project Applicant established a voluntary agreement to investigate, remediate, and/or evaluate any hazardous substance that may be present at the parcel, under the oversight of DTSC (Ridenour, pers. comm., 2021). The voluntary agreement was intended to remedy the parcel to accommodate the uses proposed under the Residences Project.

Soil investigations completed at the parcel revealed elevated concentrations of total petroleum hydrocarbon, polychlorinated biphenyls (PCB), perchlorate, and lead in site soils. Cleanup actions included the removal of impacted soil to a depth of 4 feet below grade. However, further testing revealed that total petroleum hydrocarbons as motor oil still exceeded the cleanup target levels and may be disturbed by future construction activities at the parcel. In 2013, subsequent remediation activities were performed at the parcel, which resulted in the removal of approximately 126 cubic yards of contaminated soil to approximate depth of 4 feet bgs (Wallace-Kuhl & Associates 2021).

In June 2010, a Land Use Covenant was established for the 3.02-acre parcel, which prohibits the following land uses: residences, hospitals for humans, public and private schools for persons under 21 years of age, and day cares for children. The Land Use Covenant also requires preparation of a Soil Management Plan for future soil disturbances. The Project Applicant prepared a Soil Management Plan for the parcel in August 2021, which includes procedures to be followed during site grading, excavation, stockpiling, soil sampling and laboratory analyses (if required), and backfilling activities associated with the handling of suspected or known contaminated soil (Wallace-Kuhl & Associates 2021). DTSC also identified the potential for adverse health effects from vapor intrusion at the parcel and recommended assessment of soil gas if human occupation of enclosed buildings may occur at the parcel (Amador, pers. comm., 2021).

SCHOOLS

There are no existing or proposed schools within 0.25 mile of the project site. The nearest school is Capitol Academy, a private educational institution located at 3063 Gold Canal Drive in the City Rancho Cordova, approximately 0.3 mile north of the project site.

AIRPORTS

The Mather Airport is a public airport approximately 1.3 miles south of the project site. The project site is within the airport influence area of the Mather Airport, which is the area where noise, safety, airspace protection, and overflight notification policies and compatibility criteria may affect land uses or necessitate restrictions on those uses (SACOG 2020).

EMERGENCY RESPONSE

The City adopted the Sacramento County Multi-Hazard Disaster Plan (SCMDP), which was established to address planned response to extraordinary emergency situations associated with natural disasters and technological incidents. The SCMDP focuses on operational concepts relative to large-scale disasters, which can pose major threats to life and property requiring unusual emergency responses. The SCMDP was designed to include Sacramento County as a part of the California Standardized Emergency Management System, which assigns responsibilities to support implementation of the SCMDP and to ensure successful response during a major disaster.

WILDLAND FIRE RISKS

According to the California Department of Forestry and Fire Protection, the project site is within a non-very high fire hazard severity zone (VHFHSZ) in a local responsibility area (CAL FIRE 2008).

3.9.2 Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant. A hazardous material is defined as any material that due to its quantity, concentration, physical or chemical characteristics, poses a significant present or potential hazard to human health or to the environment if released. Project-related construction may involve the temporary use, transport, and disposal of hazardous materials in the form of inorganic and organic chemicals, solvents, paints, oil, gasoline, cleansers. However, the construction-related transport, use, and disposal of hazardous materials would be temporary, occurring over approximately 36 months. All materials would be used, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions. Furthermore, any emissions from the use of such materials would be temporary in nature and localized to the project site.

Land uses that involve the routine transport, use, and disposal of hazardous materials include but are not limited to manufacturing plants, dry cleaning facilities, gas stations, agricultural properties, recycling centers, refineries, and shipyards. Once constructed, the proposed residential and commercial land uses would not involve activities that involve the routine transport, use, or disposal of hazardous materials. Any hazardous materials needed for ongoing maintenance and landscaping activities (e.g., solvents, paints, and pesticides) would be used, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions. Therefore, the project would not create a significant hazard to the public or the environment.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less than Significant. Refer to Section 3.9.2(a) above. Project-related construction and operation activities would involve the temporary use, transport, and disposal of hazardous materials. The project would be required to comply with federal, state, Sacramento County, and City of Rancho Cordova regulations relating to control of hazardous materials. Compliance with these regulations would reduce the likelihood of accidents and risks associated with

release of hazardous materials. Potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations.

As identified in the Phase I ESAs, no RECs were identified in connection with the project site. The environmental conditions described in Section 3.9.1 would not create a significant hazard to the public or the environment for the following reasons:

- Proposed development on APN 072-026-056 would be compatible with the land use restrictions recorded for the parcel.
- All buried inert waste, concrete, and other debris encountered during ground-disturbing activities would be removed and disposed of in accordance with applicable regulations.
- Groundwater contamination from offsite properties has potential to migrate to the Residences project site; however, this groundwater is not used for water supply and there is no exposure pathway to human receptors. It is not likely that groundwater would be encountered during construction activities because the depth to groundwater at the project site is expected to range from 50 to 100 feet bgs. Although over excavation of clay and silt soils may be required, the maximum depth of these soils identified in the Geotechnical Engineering Report (MPE 2020) is 21 feet bgs. If future remediation of contaminated groundwater is warranted, the property owners of the Former Purity Oil Sales/Delta Gunite Site and the Aerojet General Corporation Site would be responsible for remediation costs.
- Construction activities would be conducted in accordance with the 2021 Soil Management Plan, as required by the land use covenant, which includes procedures to be followed during site grading, excavation, stockpiling, soil sampling and laboratory analyses (if required), and backfilling activities associated with the handling of suspected or known contaminated soil (Wallace-Kuhl & Associates 2021).

Once operational, the proposed residential and commercial land uses would not involve activities that often give rise to concerns regarding hazardous materials. Therefore, the project would not create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. As discussed in Section 3.9.1, there are no existing or proposed schools within 0.25 mile of the project site. Therefore, the project would have no impact related to the emission or handling of hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than Significant. As discussed in Section 3.9.1, a portion of the Residences Project site (APN 072-026-056) is listed as a voluntary cleanup site on the DTSC EnviroStor database (DTSC 2022) and is subject to land use restrictions established in a 2010 Land Use Covenant. The proposed land uses that would be constructed on APN 072-026-056 would include the following: community swimming pool, community open space, community park/playground, community dog park, community parking, community clubhouse, and commercial development. These land uses are allowed under the Land Use Covenant for the parcel. All proposed residential uses would be located outside of the boundaries of the Land Use Covenant. In addition, all construction activities occurring on this parcel would be conducted in accordance with the 2021 Soil Management Plan and to the satisfaction of DTSC. Furthermore, all enclosed buildings intended for human occupation would be located outside the area where vapor intrusion may occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less than Significant. The project would result in the development of residential and commercial uses within the Airport Influence Area of Mather Airport. According to the Airport Land Use Compatibility Plan (SACOG 2020), the project site is partially within Safety Zone 6 (Airport Traffic Pattern Zone). Within Safety Zone 6, residential and commercial development are considered compatible land uses, and there are no limits on the density, intensity, or lot coverage for this type of development. Furthermore, the project site is outside of the 60 to 75+ decibel Community Noise Equivalent Level (CNEL) noise exposure range for Mather Airport. The acceptable level of aircraft noise for persons living in the vicinity of airports is a CNEL of 65 decibels. Because the project would be consistent with the Airport Land Use Compatibility Plan for Mather Airport, impacts related to safety hazards or excessive noise for people residing or working in the project area would be less than significant.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant. The SCMDP addresses planned response to extraordinary emergency situations associated with natural disasters and technological incidents. The SCMDP focuses on operational concepts relative to large-scale disasters, which can pose major threats to life and property requiring unusual emergency responses. The Residences Project would develop housing and commercial uses in a manner consistent with the existing zoning for the site and planned population growth for the region. There is no element of the project that would impair or physically interfere with implementation of the SCMPD (e.g., no alteration of project area roadways that could hinder emergency response or evacuation). Furthermore, as addressed in Section 3.17.2, the Sacramento Metropolitan Fire District (SMFD) would review the proposal to ensure traffic safety and adequate emergency access.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No Impact. As described in Section 3.9.1, the project site is within a non-VHFHSZ and is not in an area susceptible to wildland fires. The surrounding properties are fully developed. Vegetation associated with adjacent development consists of ornamental landscaping that is regularly irrigated and maintained and is not considered a fire hazard. Therefore, the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

3.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hydrology and Water Quality.				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial on- or offsite erosion or siltation;	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.10.1 Environmental Setting

According to the U.S. Geological Survey Watershed Boundary Dataset, the project site is in the American River Watershed and the Lower American River Subwatershed. The nearest surface water is the Folsom South Canal, located immediately east of the project site. Other nearby surface waters include the American River and Morrison Creek, approximately 2.5 miles north and 2.3 miles south of the project site, respectively.

The project site is within the Sacramento Valley Groundwater Basin, South American Subbasin (SASb). This subbasin has been designated by the California Department of Water Resources as high priority, but is not critically overdrafted.

Groundwater quality in the SASb is generally of good quality and meets local needs for municipal, domestic, and agricultural uses. Groundwater levels in the western portion of the SASb have been generally increasing since the

1980s despite a turn towards drier conditions and increasing population. The recent increase in groundwater levels has been largely attributed to a combination of conjunctive use projects (i.e., the combined use of groundwater and surface water sources), construction of the Freeport diversion facility and Vineyard surface water treatment plant, urban conservation plans, and changes in use of previous agricultural land. Groundwater levels in some areas of the eastern portion of the SASb, where the project site is located, show decreases in groundwater levels despite the lack of significant changes in land or water use. The causes of these declines are not well understood but may be attributed to the combination of remediation activities at the Inactive Rancho Cordova Test Site, Aerojet Superfund Site, and Kiefer Landfill and the aquifer becoming thin and low-yielding in this area. Areas of groundwater recharge to the subbasin include the American River to the north, the Sacramento River to the west, and the Cosumnes and Mokelumne Rivers to the south (South American Subbasin et al 2021).

The key finding of the Groundwater Sustainability Plan for the subbasin released in 2012 is that the basin will be sustainable over the next 20 years as long as planned recycled water, recharge and other projects are implemented. These projects are anticipated to raise groundwater above current levels; maintain storage volumes; and protect ecosystems, interconnected surface water, and shallow well users. Although projected climate change conditions will increase groundwater use, these effects are not expected to cause the SASb to become unsustainable or to cause notable decreasing trends in groundwater conditions (South American Subbasin et al 2021).

According to the Federal Emergency Management Agency, the Residences project site is within an area of minimal flood hazard (FEMA 2012). The project site is not within a tsunami hazard area (Cal OES 2021) and is not in proximity to an enclosed body of water that is susceptible to seiche.

3.10.2 Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than Significant. The Residences Project site is under the jurisdiction of the Central Valley RWQCB. The Central Valley RWQCB adopted the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) in 1975, and the most recent edition reflects amendments through May 2018. The purpose of the Basin Plan is to designate beneficial uses of waters within the Sacramento and San Joaquin River basins, establish water quality objectives to protect those beneficial uses, and implement a program needed to achieve those objectives. The Basin Plan establishes water quality standards for both surface and ground waters (Central Valley RWQCB 2018).

The City of Rancho Cordova, along with the cities of Citrus Heights, Folsom, and Galt, and the County of Sacramento, operate under a NPDES municipal separate storm sewer system (MS4) permit to discharge stormwater runoff from storm drains within their jurisdictions (NPDES No. CAS082597). The NPDES MS4 Permit establishes waste discharge requirements needed to attain water quality standards and protection of beneficial uses consistent with the Basin Plan. To comply with the NPDES MS4 Permit, the City imposes water quality and watershed protection measures for all new development projects. The Stormwater Quality Design Manual (SQDM) for the Sacramento Region (2018) includes guidance for the selection, siting, design, operation, and long-term maintenance of stormwater quality control measures implemented to meet the standards established in the NPDES MS4 Permit.

The Residences Project would include development of approximately 15.2 acres of new impervious cover, which is approximately 70 percent of the project site. According to the Preliminary Stormwater Quality Report, the project design would include stormwater planter facilities, disconnected roof drains (i.e., drains to pervious areas), and other treatment devices (Contech Stormfilters and Filterra units) to treat stormwater runoff from the project site (RSC Engineering, Inc. 2021a). The proposed stormwater infrastructure would fulfill the requirements of the SQDM for the Sacramento Region (2018), ensuring that project operations would not violate water quality standards or otherwise degrade water quality.

Construction activities that include ground disturbance, such as excavation, grading, and trenching increase the potential for degradation of water quality. All projects that result in a disturbance area of more than 1 acre (43,560 sq.

ft.) are required to obtain coverage under the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). The Residences Project would involve the disturbance of 22.9 acres of soil; therefore, the project must comply with the provisions of the NPDES Construction General Permit issued by the Central Valley RWQCB. The project would require preparation of a SWPPP with BMPs to prevent stormwater contamination, control sedimentation, and erosion, and comply with stormwater discharge requirements. These requirements are consistent with the stormwater management and discharge control requirements outlined in Chapter 15.12 and the land grading and erosion control requirements outlined in Chapter 16.44 of the Rancho Cordova Municipal Code. Furthermore, the Residences Project would protect water quality through daily watering of unpaved areas to stabilize soil and prevent erosion during construction. Through compliance with the NPDES MS4 and Construction General Permits, the Residences Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant. Interference with groundwater recharge typically occurs with introduction of new impervious surfaces. The Residences Project would include development of approximately 15.2 acres of new impervious cover, which is approximately 70 percent of the project site. According to the Preliminary Stormwater Quality Report, the project design would include stormwater planter facilities, disconnected roof drains (i.e., drains to pervious areas), and other treatment devices (Contech Stormfilters and Filterra units) to treat stormwater runoff from the project site and allow it to percolate back into the soil (RSC Engineering, Inc. 2021a). The proposed stormwater infrastructure would fulfill the requirements of the SQDM for the Sacramento Region (2018). Therefore, the Residences Project would not interfere with groundwater recharge.

Groundwater levels in the eastern portion of the SASb, where the project site is located are affected by ongoing remediation of several large contaminant plumes. Refer to Section 3.10.2(e), below, for further discussion of sustainable management of the basin. Refer to Section 3.20, "Utilities and Services Systems," for discussion of groundwater demand associated with the project. Water would be provided by the local water purveyor, which manages a portfolio of water supplies.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial on- or offsite erosion or siltation;

Less than Significant. As discussed in Section 3.7.2(b), project-related construction activities that include ground disturbance, such as excavation, grading, and trenching would increase the potential for erosion to occur. The project would involve the disturbance of 22.9 acres of soil; therefore, the project must comply with the provisions of the NPDES Construction General Permit issued by the Central Valley RWQCB. The project would require preparation of a SWPPP with BMPs to control erosion. These requirements are consistent with the land grading and erosion control requirements outlined in Chapters 15.12 and 16.44 of the Rancho Cordova Municipal Code. Furthermore, the Project would comply with Sacramento Metropolitan AQMD (Fugitive Dust), which requires daily watering of unpaved areas to stabilize soil and prevent wind erosion events.

Once operational, the project site would be developed with approximately 15.2 acres impervious area, including buildings, asphalt parking lots, and concrete walkways. As described in the Preliminary Stormwater Quality Report, the project would be designed to meet the stormwater quality and LID requirements of the SQDM for the Sacramento Region (RSC Engineering, Inc. 2021a). Proposed stormwater features, which include stormwater planter facilities, underground stormwater treatment devices, and disconnected roof drain systems, would reduce erosion potential from operational runoff. Furthermore, landscaping would reduce erosion potential in unpaved areas. With

adherence to applicable rules and regulations and implementation of BMPs and LID practices, the project would result in a less than significant impact related to erosion and siltation.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

Less than Significant. As discussed in Section 3.10.2(b) above, the Residences Project would include development of approximately 15.2 acres of new impervious cover, which is approximately 70 percent of the project site. According to the Preliminary Stormwater Quality Report, the project design would include stormwater planter facilities, disconnected roof drains (i.e., drains to pervious areas), and other treatment devices (Contech Stormfilters and Filterra units) to treat stormwater runoff from the project site and allow it to percolate back into the soil (RSC Engineering, Inc. 2021a). The proposed stormwater infrastructure would fulfill the requirements of the SQDM for the Sacramento Region. Therefore, the Residences Project would not increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less than Significant. As discussed in Section 3.10.2(b) above, the Residences Project would include development of approximately 15.2 acres of new impervious cover, which is approximately 70 percent of the project site. According to the Preliminary Stormwater Quality Report, the project design would include stormwater planter facilities, disconnected roof drains (i.e., drains to pervious areas), and other treatment devices (Contech Stormfilters and Filterra units) to treat stormwater runoff from the project site and allow it to percolate back into the soil (RSC Engineering, Inc. 2021a). The proposed stormwater infrastructure would fulfill the requirements of the SQDM for the Sacramento Region. Therefore, the Residences Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

iv) Impede or redirect flood flows?

No Impact. As discussed in Section 3.10.1, the project site is within an area of minimal flood hazard (FEMA 2012). Therefore, the Residences Project would not result in impacts related to impeding or redirecting flood flows.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. As discussed in Section 3.10.1, the Residences project site is not within a flood hazard zone, a tsunami hazard area, or in proximity to an enclosed body of water that is susceptible to seiche (FEMA 2012; Cal OES 2021). Therefore, the Residences Project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant. The Residences Project would be designed to meet the stormwater quality and LID requirements of the SQDM for the Sacramento Region. In addition, BMPs would be implemented during construction activities to prevent stormwater contamination, control sedimentation, and erosion, and comply with stormwater discharge requirements. Because the Residences Project would comply with the requirements of the NPDES MS4 and Construction General Permits, the project would not conflict with or obstruct implementation of the Basin Plan.

As described above, the SASb has been designated by the California Department of Water Resources as high priority but is not critically overdrafted. The project site is not within or near the key areas of groundwater recharge to the subbasin (i.e., the American River, Sacramento River, and Cosumnes River). Further, the project would not conflict with the projects identified in the Groundwater Sustainability Plan as important to raise groundwater above current levels;

maintain storage volumes; and protect ecosystems, interconnected surface water, and shallow well users. Although projected climate change conditions will increase groundwater use, these effects are not expected to cause the SASb to become unsustainable or to cause notable decreasing trends in groundwater conditions.

Water supplied to the project would be sourced from a diverse water portfolio, including groundwater. As described in Section 3.20, "Utilities and Services Systems," the project is consistent with the population projections assumed in Golden State Water Company's water management planning. The Residences Project would not conflict with or obstruct implementation of a sustainable groundwater management plan.

3.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning.				
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

3.11.1 Environmental Setting

The project site is a vacant infill property in the City's Capital Center and is surrounded by residential uses, park facilities, and office and industrial uses. Specific uses include the San Juan Soccer Club complex to the north, industrial development (including Costco, office, laboratory, and automotive industries) east of the Folsom South Canal, single family development to the south, and medical office buildings to the west. The project site is designated as OMU in the City's General Plan Land Use Diagram and the zoning designation for the project site is OPMU.

3.11.2 Discussion

a) Physically divide an established community?

No Impact. As described in Section 3.11.1, the project site consists of a vacant infill property surrounded by residential uses, park facilities, and office and industrial uses. All project improvements would be contained within the existing privately-owned parcel. The project would be compatible with surrounding land uses and would not include physical features that would restrict access to neighboring communities. Therefore, the project would not physically divide an established community.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. As discussed in Section 3.11.1, the project site is designated for OMU land uses and is zoned OPMU. According to the City's General Plan Land Use Element, the OMU land use designation encourages the integration of commercial and/or residential use in conjunction with office use of a site (City of Rancho Cordova 2015). According to Chapter 23.313 of the Rancho Cordova Municipal Code, the OPMU zoning district is intended for the development of larger office buildings and business parks; however, commercial service and residential uses may be integrated into office buildings or as freestanding buildings. The Residences Project would consist of a modern mixed-use infill residential development with a destination commercial-retail component. The proposed multifamily units, townhome rental units, and commercial space would be an allowed use of the OPMU district.

In addition, as demonstrated through this environmental checklist, the project would be consistent with all applicable General Plan policies. See, for example, Section 3.4, "Biological Resources," Section 3.8, "Greenhouse Gas Emissions," and Section 3.17, "Transportation." In addition, the project would be conditioned to require compliance with the SSHCP, City and State water quality control standards, and would be reviewed by SMAQMD for consistency with the SIP. Because the project would be consistent with existing land use and zoning designations for the project site and all applicable policies from the City's General Plan, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources.				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

3.12.1 Environmental Setting

The California Surface Mining and Reclamation Act of 1975 requires the State Geologist to classify land into Mineral Resource Zones (MRZ) according to the known or inferred mineral potential of that land. Areas classified as MRZ-2 include areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence. The process is based solely on geology, without regard to existing land use or land ownership. The primary goal of mineral land classification is to ensure that the mineral resource potential of land is recognized by local government decision-makers and considered before land-use decisions that could preclude mining are made.

The site was extensively dredged for gold recovery sometime between 1947 and 1952. Large, floating dredges excavated river deposited sediments as they moved across the site in a north-south direction. Gravel and cobbles were screened off and deposited with sand in long ridges, and clays and silts were washed overboard and deposited in ponds between the ridges. The site was mined for aggregate from at least 1981 through at least 1984 (MPE 2020).

According to the City of Rancho Cordova General Plan EIR, the project site is within an area classified as MRZ-2 (City of Rancho Cordova 2006b). Based on mapping completed by the Division of Mines and Geology (now known as the California Geological Survey), the project site is within an area where Portland cement concrete-grade aggregate operations have occurred (Division of Mines and Geology 1999). However, the project site is currently vacant and no active mining operations occur on the project site.

3.12.2 Discussion

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less than Significant. As described in Section 3.12.1, mining has occurred on the site and recoverable deposits of gold and aggregate have been removed. The project site is zoned for office professional mixed-use land uses and is surrounded by urban development that precludes mineral resource extraction. Therefore, the project would not result in the loss of availability of a known mineral resource of regional value or of a locally important mineral resource recovery site delineated on a land use plan.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

See response in item (a) above.

3.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII.Noise.				
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.13.1 Environmental Setting

ACOUSTIC FUNDAMENTALS

Acoustics is the scientific study that evaluates perception, propagation, absorption, and reflection of sound waves. Sound is a mechanical form of radiant energy, transmitted by a pressure wave through a solid, liquid, or gaseous medium. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise. Noise is typically expressed in decibels (dB), which is a common measurement of sound energy. Definitions of acoustical terms used in this section are provided in Table 3.13-1.

Table 3.13-1 Acoustic Term Definitions

Term	Definition
Noise	Noise is generally defined as sound that is loud, disagreeable, unexpected, or unwanted.
Decibel (dB)	Sound levels are measured using the decibel scale, developed to relate to the range of human hearing. A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly summed. For example, a 65-dB source of sound, such as a truck, when joined by another 65-dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a 100-fold increase in acoustical energy.
A-weighted decibel (dBA)	The human ear is not equally sensitive to loudness at all frequencies in the audible spectrum. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed, identified as A through E. There is a strong correlation between the way humans perceive sound and A-weighted sound levels. For this reason, the A-weighted sound levels are used to predict community response to noise from the environment, including noise from transportation and stationary sources, and are expressed as A-weighted decibels. All sound levels discussed in this section are A-weighted decibels unless otherwise noted.

Term	Definition
Equivalent Noise Level (L_{eq})	The average noise level during a specified time period; that is, the equivalent steady-state noise level in a stated period of time that would contain the same acoustic energy as the time-varying noise level during the same period (i.e., average noise level).
Maximum Noise Level (L_{max})	The highest instantaneous noise level during a specified time period.

Source: Caltrans 2013a.

Noise Generation and Attenuation

Noise can be generated by many sources, including mobile sources such as automobiles, trucks, and airplanes and stationary sources such as activity at construction sites, machinery, and commercial and industrial operations. As sound travels through the atmosphere from the source to the receiver, noise levels attenuate (i.e., decrease) depending on ground absorption characteristics, atmospheric conditions, and the presence of physical barriers. Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates at a rate of 6 dB for each doubling of distance from a point source. Noise from a line source, such as a road or highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. Noise attenuation from ground absorption and reflective-wave canceling provides additional attenuation associated with geometric spreading. For acoustically absorptive sites such as soft dirt, grass, or scattered bushes and trees, additional ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the attenuation rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dB per doubling of distance.

Atmospheric conditions such as wind speed, wind direction, turbulence, temperature gradients, and humidity also alter the propagation of noise and affect levels at a receiver. Furthermore, the presence of a barrier (e.g., topographic feature, intervening building, and dense vegetation) between the source and the receptor can provide substantial attenuation of noise levels at the receiver. Natural (e.g., berms, hills, and dense vegetation) and human-made features (e.g., buildings and walls) may function as noise barriers.

To provide some context to noise levels described throughout this section, common sources of noise and associated noise levels are presented in Table 3.13-2.

Table 3.13-2 Typical Noise Levels

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet	100	
Gas lawnmower at 3 feet	90	
Diesel truck moving at 50 mph at 50 feet	80	Food blender at 3 feet, garbage disposal at 3 feet
Noisy urban area, gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet, normal speech at 3 feet
Commercial area, heavy traffic at 300 feet	60	
Quiet urban daytime	50	Large business office, dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library, bedroom at night, concert hall (background)
Quiet rural nighttime	20	Broadcast/recording studio
	10	
Threshold of human hearing	0	Threshold of human hearing

Notes: dB = A-weighted decibels; mph = miles per hour

Source: Caltrans 2013a.

Effects of Noise on Humans

Exposure to excessive noise may result in physical damage to the auditory system, which may lead to gradual or traumatic hearing loss. Gradual hearing loss is caused by sustained exposure to moderately high noise levels over a period of time; traumatic hearing loss is caused by sudden exposure to extremely high noise levels over a short period. Non-auditory behavioral effects of noise on humans are primarily subjective effects such as annoyance, nuisance, and dissatisfaction, which lead to interference with activities such as communications, sleep, and learning.

EXISTING NOISE SOURCES AND LEVELS

The predominant noise sources in the area are the San Juan Soccer Club, vehicular traffic along the surrounding roadways, and commercial truck traffic from the retail land uses nearby. The traffic noise levels along Kilgore Road, White Rock Road, and Sunrise Boulevard are 66 dBA, 72 dBA, and 76 dBA, respectively (Appendix E).

NOISE- AND VIBRATION-SENSITIVE LAND USES AND RECEPTORS

Noise- and vibration-sensitive land uses generally include those uses where noise exposure could result in health-related risks to individuals, places where a quiet setting is an essential element of the intended purpose (e.g., schools and libraries), and historic buildings that could sustain structural damage due to vibration. The project is in a sparsely populated area where land is generally undeveloped. Noise- and vibration-sensitive receptors in the vicinity of the project area include nearby residents and the Charter School of Morgan Hill. The closest sensitive receptor to the project area are the existing residences across International Drive, which are a minimum of 200 feet south of the project area.

AIRPORTS AND PRIVATE AIRSTRIPS

There are no public airports or private airstrips within the project vicinity. The nearest airport is the Mather Airport, which is located approximately 1.5 miles southwest of the project area.

REGULATORY SETTING

Federal Regulations

Federal Transit Administration

The Federal Transit Administration (FTA) provides guidance on evaluating human response to ground vibration. The FTA has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses where people live or work. These guidelines are presented in Table 3.13-3.

Table 3.13-3 Groundborne Vibration Impact Criteria for Human Response

Land Use Category	Ground-Borne Vibration Impact Levels for Human Response (VdB re 1 microinch/second)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations.	65[4]	65[4]	65[4]
Category 2: Residences and buildings where people normally sleep.	72	75	80
Category 3: Institutional land uses with primarily daytime uses.	75	78	83

Notes: VdB re 1 microinch/second = vibration decibels referenced to 1 microinch/second and based on the root mean square velocity amplitude.

[1] "Frequent Events" is defined as more than 70 vibration events of the same source per day.

[2] "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

[3] "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.

[4] This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define acceptable vibration levels.

Source: FTA 2018.

State Regulations

California Department of Transportation

In 2013, Caltrans published the Transportation and Construction Vibration Manual, which provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage (Caltrans 2013b). Table 3.13-4 presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

Table 3.13-4 Structural Damage Potential to Buildings at Various Groundborne Vibration Levels

Structure and Condition	Transient Sources PPV (in/sec)	Transient Sources PPV (in/sec)
Extremely Fragile Historic Buildings, Ruins, Ancient Monuments	0.12	0.08
Fragile Buildings	0.2	0.1
Historic and Some Old Buildings	0.5	0.25
Older Residential Structures	0.5	0.3
New Residential Structures	1.0	0.5
Modern Industrial/Commercial Buildings	2.0	0.5

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: Caltrans 2013b.

Local Regulations

Rancho Cordova General Plan

The General Plan Noise Element identifies noise criteria for various stationary and transportation noise sources. Performance standards for stationary noise sources and maximum allowable noise exposure from transportation noise sources, are included below in Tables 3.13-5 and 3.13-6, respectively.

Table 3.13-5 City of Rancho Cordova Performance Standards for Stationary Noise Sources

Source	Nosie Level Descriptor	Daytime (7 a.m. – 10 p.m.)	Nighttime (10 p.m. – 7 a.m.)
Typical	Hourly L_{eq} dB	55	45
Tonal, impulsive, repetitive, or consist primarily of speech or music	Hourly L_{eq} dB	50	40

Notes: dB = decibels; L_{eq} = energy-equivalent noise level.

Source: City of Rancho Cordova 2006a.

Table 3.13-6 City of Rancho Cordova Maximum Transportation Noise Exposure

Land Use	Outdoor Activity Areas[1] Ldn/CNEL, dB	Ldn/CNEL, dB	Leq, dB[2]
Residential	60[3]	45	-
Residential subject to noise from railroad tracks, aircraft overflights, or similar noise sources which produce clearly identifiable, discrete noise events (e.g., the passing of a single train)	60[3]	40[5]	-
Transient lodging	60[4]	45	-
Hospitals, nursing homes	60[3]	45	-
Theaters, auditoriums, music halls	-	-	35
Churches, meeting halls	60[3]	-	40
Office Buildings	-	-	45
Schools, libraries, museums	-	-	45
Playgrounds, neighborhood parks	70	-	-

Note: CNEL = community equivalent noise level; dB = decibels; Ldn= day-night average noise level; Leq = energy-equivalent noise level

[1] Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.

[2] As determined for a typical worst-case hour during periods of use.

[3] Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

[4] In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.

[5] The intent of this noise standard is to provide increased protection against sleep disturbance for residences located near railroad tracks.

Source: City of Rancho Cordova 2006a.

Rancho Cordova Noise Ordinance

The City Noise Ordinance establishes maximum allowable exterior and interior noise levels for affected land uses. The ordinance limits exterior noise levels (measured at residential land and agricultural land uses) to a maximum of 55 dBA during any cumulative 30-minute period during the daytime hours (7 a.m.–10 p.m.), and 50 dBA during any cumulative 30-minute period during the nighttime hours (10 p.m.–7 a.m.). Daytime construction activities are generally exempt from the noise standards.

3.13.2 Discussion

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

Less than significant. Project-related noise would be generated by heavy equipment used onsite during project construction and by increased vehicle trips associated with project operation. These types of noise sources are discussed separately below.

Construction

In the project area, the dominant noise source is roadway traffic, primarily from vehicles along White Rock Road and International Drive and events at the San Juan Soccer Club field. The project would result in temporary increase in noise levels during construction as a result of heavy equipment movement and pavement removal, but no permanent

increases in ambient noise levels would occur during operation. Construction-related noise sources would include both mobile and stationary on-site equipment (e.g., dozers, loaders, generators). Construction noise would be short-term and temporary, and operation of heavy-duty construction equipment would be intermittent throughout the day during construction.

Within the City of Rancho Cordova, the City's Municipal Code Chapter 6.68 exempts certain activities, including construction, from the City's noise standards as long as the activities are limited to the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday; Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday and on each Sunday after the hour of 8:00 p.m. This exemption provides that construction equipment must include appropriately maintained exhaust and intake silencers. However, the City does not specify limits in terms of maximum noise levels that may occur during the allowable construction hours.

Project construction activities would involve the use of heavy equipment, such as graders, cranes, dozers, tractors, forklifts, generator sets, paving equipment, rollers, welders, mixers, and air compressors. However, the specific construction equipment used would vary depending on the project phase and specific activities occurring. The loudest pieces of equipment that would be used during construction would be dozers, graders and tractors, all which generate noise levels ranging from 84 to 85 dBA L_{max} at 50 feet (FHWA 2006:3). Noise modeling conservatively assumed the simultaneous operation of the three loudest pieces of heavy construction equipment (i.e., a grader, a dozer, and a tractor) operating at the boundary of the project area (see Appendix E). At a distance of 140 feet to the nearest structure, construction related activities could result in hourly average noise levels of approximately 77 L_{eq} and 81 L_{max}.

There is noise generated by traffic on International Drive, which separates the southern boundary of the project site from the nearest sensitive receptors and an existing sound wall between those existing residences and International Drive. Construction activities would occur within the timeframe identified by the City's noise ordinance when construction noise is exempt from noise standards. Thus, the project would not generate a substantial temporary increase in ambient noise levels in excess of allowable standards in the vicinity of the project.

Operation

Traffic Noise

Project-generated vehicle trips would result in an increase in average daily traffic volumes and associated increases in traffic noise levels along affected roadway segments near the site. To analyze the impact of project-generated operational transportation noise sources, traffic noise levels under existing and existing-plus-project conditions were modeled for affected roadway segments. For further details on traffic volumes and conditions, see Section 3.16, "Transportation." Refer to Appendix E for detailed noise modeling input parameters.

Table 3.13-7 summarizes the modeled traffic noise levels at the nearest applicable offsite receptors from the roadway centerlines under existing and existing plus project conditions, along with the overall net change in noise level as a result of project-generated traffic. As shown in Table 3.13-7, the addition of project-generated traffic to the surrounding roadway network would not result in any of the roadway study segments experiencing noise increases above 3 dBA. Thus, the project would not result in a perceptible noise increase as a result of new vehicle trips generated from the project.

Table 3.13-7 Summary of Modeled Existing Plus Project Traffic Noise Levels

Roadway Segment	Segment Description	Existing Condition Noise Levels (L_{dn})	Existing plus Project Conditions (L_{dn})	Traffic Noise Level Increase
Zinfandel Dr	White Rock Rd to International Dr	72.9	72.9	0.0
Zinfandel Dr	US-50 EB Ramps to White Rock Rd	75.3	75.4	0.1
Zinfandel Dr	US-50 EB Ramps to US-50 WB Ramps	74.5	74.6	0.1
Zinfandel Dr	Folsom Blvd to US-50 WB Ramps	73.4	73.5	0.0
White Rock Rd	Zinfandel Dr to Kilgore Rd	71.8	72.1	0.3
White Rock Rd	Kilgore Rd to Sunrise Blvd	71.9	72.2	0.3
Kilgore Rd	Folsom Blvd to White Rock Rd	68.4	68.4	0.0
Kilgore Rd	White Rock Rd to International Dr	67.9	70.0	2.2
White Rock Rd	Sunrise Blvd to Grant Line Rd	68.9	69.1	0.2
Sunrise Blvd	White Rock Rd to Douglas Rd	76.3	76.3	0.0
Sunrise Blvd	Folsom Blvd to White Rock Rd	77.8	77.9	0.1
Sunrise Blvd	US-50 EB Ramps to Folsom Blvd	78.2	78.2	0.1
Sunrise Blvd	US-50 WB Ramps to US-50 EB Ramps	76.7	76.8	0.1
Sunrise Blvd	US-50 EB Ramps to Coloma	79.6	79.7	0.0

Notes: L_{dn} = Day-Night Level

All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow, and does not account for shielding of any type or finite roadway adjustments. All noise levels are reported as A-weighted noise levels. For additional details, refer to Appendix E for detailed traffic data, and traffic-noise modeling input data and output results.

Source: Data modeled by Ascent Environmental in 2022.

Stationary Noise

The loudest operational noise from non-transportation sources is often generated by onsite mechanical equipment such as HVAC equipment. Noise levels generated from HVAC equipment vary substantially depending on unit efficiency, size, and location. Generally, HVAC equipment generates noise levels of 60 dBA at six meters (19.6 feet). The specific location of the HVAC equipment relative to adjacent sensitive receptors are not known at this time. HVAC equipment at the project site could exceed the City's nighttime L_{eq} standard (Table 3.13-5) if located within 75 feet of noise-sensitive land uses during nighttime hours (10 p.m. to 7 a.m.) occurring for more than 30 minutes. The nearest sensitive receptor is 200 feet south of the site. Noise levels generated from HVAC equipment at the nearest noise-sensitive land use would be 34 dBA at 200 feet and below the City's stationary noise standard. As a result, operation of the HVAC equipment would not exceed the City's threshold for stationary noise sources.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than significant. Project construction would not involve the use of ground vibration–intensive activities, such as pile driving or blasting. Pieces of equipment that generate lower levels of ground vibration, such as dozers and pavers, would be used during construction. These types of common construction equipment do not generate substantial levels of ground vibration that could result in structural damage, except at extremely close distances (i.e., within at least 10 feet). The most ground vibration–intensive activity performed during project construction would be use of a roller. Rollers generate a ground vibration level of 0.21 in/sec PPV and 94 VdB at 25 feet (FTA 2018:184). Vibration from rolling could exceed the threshold of significance of 0.2 in/sec PPV for building structural damage within 26 feet of activities and the threshold of significance for human annoyance of 80 VdB within 73 feet of activities. No sensitive land uses or permanent structures are located within 140 feet of areas where construction activity would take place at the site. No rolling would occur within 26 feet of an existing building or within 73 feet of a residence. Operation of the project would not include any substantial vibration sources. Therefore, construction and operational generated vibration would not result in structural damage or human annoyance.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not located within the 60 dB CNEL contour for Mather Airport (SACOG 2021), and as such, on-site residences would not be exposed to airport-related noise in excess of City standards.

3.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Population and Housing. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Environmental Setting

According to the U.S. Census Bureau, the 2020 population in the City of Rancho Cordova was 79,332 residents. Based on the 2015–2019 American Community Survey, there were approximately 25,508 households and the average household size was 2.85 residents (U.S. Census Bureau 2021).

According to the City's General Plan Land Use Element, approximately 60 percent of the existing housing is single-family and the remaining 40 percent is predominately multi-family. To meet housing demands, the Land Use Element identifies the need for a more diverse, higher-density housing supply, including townhomes, condominiums, and mixed-use housing above ground floor retail or office spaces (City of Rancho Cordova 2015). According to the Housing Element, the 2014–2018 American Community Survey vacancy rate in the City of Rancho Cordova was 0.6 percent for homeownership and 3.9 percent for rental housing, which is considered low to very low (City of Rancho Cordova 2021a).

3.14.2 Discussion

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant. The Residences Project would result in the construction of 417 residential units, comprised of 240 multifamily units and 177 townhome rental units. Based on the City's average household size of 2.85 residents, the project would have a residential population of approximately 1,043 residents. These residents could include people relocating from other cities in the region or from within the City of Rancho Cordova itself.

The project site is a vacant infill property within an area planned for development. As discussed in Section 3.11, "Land Use," residential development in conjunction with office uses is consistent with the land use and zoning designation for the project site. Although the Residences Project could contribute to population growth in the City of Rancho Cordova, the project is intended to provide diverse rental housing opportunities to meet current and future housing demand. Because the City has low to very low vacancy rates and identified the need for a more diverse housing supply, the Residences Project is anticipated to be growth-accommodating rather than growth-inducing. Therefore, the Residences Project would not induce substantial unplanned population growth.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project site is currently vacant and does not contain existing housing units. Therefore, the project would not displace people or housing, necessitating the construction of replacement housing elsewhere.

3.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services.				
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

3.15.1 Environmental Setting

SMFD provides fire protection services, fire suppression, inspection, plan checking, emergency transportation and medical services, public education, advanced life support, and rescue services to the City of Rancho Cordova. According to SMFD's Community Annual Report for the 2019-2020 fiscal year, the fire district served a population of approximately 757,000 residents over an area of 359 square miles. SMFD operated 41 stations and employed approximately 552 fire, medical, and rescue personnel in the 2019-2020 fiscal year. According to the City's General Plan EIR, SMFD established a goal for a response time of 5 minutes or less for 80 percent of the time in the urbanized portions of the city (City of Rancho Cordova 2006b). Response times for the 2019-2020 fiscal year averaged 4 minutes and 28 seconds for structure fires and 6 minutes and 8 seconds for medical aid (SMFD 2020). SMFD Station 66 is the closest fire protection facility, located immediately west of the project site at 3180 Kilgore Road.

Police protection services within the City of Rancho Cordova are provided by the City of Rancho Cordova Police Department (RCPD), which is contracted through the Sacramento County Sheriff's Department Patrol Services. RCPD employs 55 officers to enforce State statutes and City codes and ordinances (RCPD n.d.). According to the City's General Plan EIR, RCPD established a goal of providing one police officer for every 1,000 citizens and of achieving a response time of 5 minutes or less for Priority One calls (i.e., calls for violent crimes or emergencies requiring an immediate response to save a life) (City of Rancho Cordova 2006b). The Rancho Cordova Police Station is located at 2897 Kilgore Road, approximately 0.7 mile north of the project site.

The project site is within the boundaries of the Folsom Cordova Unified School District (FCUSD). FCUSD enrolls approximately 20,800 students at 22 elementary schools, 4 middle schools, 3 high schools, 6 alternative schools, and 1 charter school (FCUSD n.d.). The enrollment capacity for City of Rancho Cordova schools is 9,972 students and the enrollment capacity for the overall district is 21,527 students (FCUSD 2021). The Residences Project would be within the attendance boundaries of the FCUSD schools listed in Table 3.15-1.

Table 3.15-1 Public School Facilities Serving the Residences Project Site

Name	Address	Distance to Project Site	2018-2019, 2019-2020 Student Enrollment[1]	2013 Student Capacity[2]
Navigator Elementary School	10679 Bear Hollow Dr, Rancho Cordova, CA 95670	1.1 miles southwest of the project site	374	558
W.E. Mitchell Middle School	2100 Zinfandel Dr, Rancho Cordova, CA 95670	1.6 miles north of the project site	885	843
Cordova High School	2239 Chase Dr, Rancho Cordova, CA 95670	2.1 miles northwest of the project site	1,855	1,951

[1] Student enrollment data is based on the 2018-2019 and 2019-2020 school years and was obtained from U.S. News & World Report in 2022

[2] Student capacity data is based on the district optimal capacity from the FCUSD 2013 Facilities Master Plan, Appendix B, "Facility Inventory"

Source: Compiled by Ascent Environmental in 2022

The Cordova Recreation and Park District (CRPD) provides and maintains public recreation facilities and services within the City of Rancho Cordova. CRPD operates over 600 acres of open space and over 43 parks and recreational facilities, which include neighborhood and community parks, a community barn, a dog park, a sports complex, community pools, community centers, and a golf course (CRPD 2022). CRPD parks and recreational facilities within 1 mile of the Residences project site are summarized in Table 3.15-2. In addition, there is an existing CRPD trail system within the adjacent Villages at Zinfandel development.

Table 3.15-2 Public Parks and Recreational Facilities in Proximity to the Residences Project Site

Name	Address	Distance to Project Site	Amenities
Renaissance Park	3125 Mowbray Way, Rancho Cordova, CA	0.4 mile southwest of the project site	Neighborhood park with picnic pavilion, playground, half-court basketball court, and open grass area
Tuscany Park	3460 Corvina Dr, Rancho Cordova, CA	0.4 mile south of the project site	5-acre park with a playground, basketball court, soccer field, picnic areas, and open green space
The Village Green	3141 Bridgeway Dr, Rancho Cordova, CA	0.5 mile west of the project site	Park with large outdoor amphitheater, splash pad plaza, open grass area, and picnic areas
Cobblestone Park	10900 Barden Dr, Rancho Cordova, CA 95670	0.6 mile southwest of the project site	1.6-acre neighborhood park with shade trees, an open grass area, picnic areas, a playground, a fitness station, and a multiuse field
Stone Creek Community Park	3625 Spoto Drive, Rancho Cordova, CA	0.9 mile southwest of the project site	21 acres of open space and recreational amenities, which include an open-air amphitheater, aquatic splash park, skate park, playgrounds, picnic areas, and athletic fields

Source: Information obtained from the CRPD and compiled by Ascent Environmental in 2022

Other public facilities in proximity to the project site include the Rancho Cordova Library, which is part of the Sacramento Public Library System. The Rancho Cordova Library is located at 9845 Folsom Boulevard in the City of Sacramento, approximately 3.2 miles west of the project site.

3.15.2 Discussion

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

Less than Significant. The Residences Project would not result in the need for new or expanded fire protection facilities because the Residences project site is within a developed area and would be served by the SMFD. As discussed in Section 3.14, "Population and Housing," the Residences Project is anticipated to have a residential population of approximately 1,043 residents. In addition, the Residences Project would add new commercial-retail development that could accommodate some additional visitors to the project site at any given time. This increase in population would increase the demand for SMFD services, which could adversely affect SMFD service ratios and response times.

Plans for proposed development projects are subject to review and approval by the City's Development Services Team, which is made up of multiple City departments and partner agencies, including the SMFD. The project design would be required to comply with the most current building and fire codes, which include requirements for hydrant spacing, fire flow, access and roadway requirements, and limitations on materials used. Compliance with these requirements would reduce fire-related hazards associated with the proposed development.

Furthermore, new construction and development projects served by the SMFD are required to pay a Capital Fire Facilities Fee. This fee is intended to finance capital improvements for fire protection and emergency medical services that are needed to accommodate a growing service population. The project proponent would be required to pay a Capital Fire Facilities Fee as a condition of project approval, which would offset any impacts to SMFD service ratios, response times, or performance objectives.

The City's General Plan provides policies for ensuring adequate fire protection in accordance with projected growth and development. The population growth from the Residences Project would be consistent with the type of growth anticipated in the City's General Plan. Therefore, the Residences Project could be served by existing fire protection facilities and new facilities proposed under the City's General Plan. Based on the discussion above, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection and emergency services facilities.

Police protection?

Less than Significant. The Residences Project would not result in the need for new or expanded fire protection facilities because the project site is within a developed area and would be served by the RCPD. As discussed in Section 3.14, "Population and Housing," the Residences Project is anticipated to have a residential population of approximately 1,043 residents. In addition, the Residences Project would add new commercial-retail development that could accommodate up to some additional visitors to the project site at any given time. This increase in population would increase the demand for RCPD services, which could adversely affect RCPD service ratios and response times.

Plans for proposed development projects are subject to review and approval by the City's Development Services Team, which is made up of multiple City departments and partner agencies. The City would coordinate with RCPD during the review of the Residences Project development plan. In addition, the City encourages the incorporation of Crime Prevention Through Environmental Design principles in the design and siting of new buildings. Incorporation of these design principles would reduce crime and improve security within the proposed development.

Furthermore, new construction and development projects served by the RCPD are required to pay a development impact fee. This fee is intended to finance capital improvements for law enforcement related services that are needed to accommodate a growing service population. The project proponent would be required to pay this fee as a condition of project approval, which would offset any impacts to RCPD service ratios, response times, or performance objectives.

The City's General Plan provides policies for ensuring adequate police protection in accordance with projected growth and development. Population growth from the Residences Project would be consistent with the type of growth anticipated in the City's General Plan. Therefore, the Residences Project could be served by existing police protection facilities and new facilities proposed under the City's General Plan. Based on the discussion above, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities.

Schools?

Less than Significant. The Residences project site is within the district boundaries of FCUSD. Based on student yield factors from the FCUSD Facility Master Plan (2013), the Residences Project would generate approximately 162 students. This increase in the student population would increase student enrollment at FCUSD schools, which could cause enrollment to reach or exceed capacity or adversely affect student to teacher ratios.

Table 3.15-3 Student Yield Rates for the Residences Project

School Type	Number of Students		
	177 Single-Family Attached Units	240 Multi-Family Units	All Units
Elementary School (K-5)	57 (0.32/unit)	27 (0.11/unit)	84
Middle School (6-8)	18 (0.10/unit)	20 (0.08/unit)	38
High School (9-12)	25 (0.14/unit)	8 (0.03/unit)	33
Special Education	4 (0.02/unit)	3 (0.01/unit)	7
Total	**104**	**58**	**162**

Source: FCUSD 2013; Page E-2.

Government Code Section 65995 and 65996 require payment of development impact fees to offset the overcrowding of schools from new elementary, middle, and high school students generated from the project. The project proponent would be required to pay this fee as a condition of project approval, which would offset any impacts to FCUSD enrollment.

The City's General Plan provides policies for ensuring adequate school facilities in accordance with projected growth and development. Student population growth from the Residences Project would be consistent with the type of growth anticipated in the City's General Plan. Therefore, the Residences Project could be served by existing schools and new schools proposed under the City's General Plan. Based on the discussion above, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities.

Parks?

Less than Significant. As discussed in Section 3.14, "Population and Housing," the Residences Project is anticipated to result in a population of approximately 1,043 residents. This increase in population would increase the use of existing CRPD parks and open spaces.

According to the City's General Plan, the City requires all new residential development to dedicate 1.75 acres of open space land and 5 acres of parkland per 1,000 population. The City reviews proposals for new residential development to ensure compliance with the City's minimum open space and CRPD, in coordination with the City, reviews new residential development to ensure compliance with CRPD's Quimby parkland standards. As described in Section 2, "Project Description," the Residences Project would provide recreational amenities for residents, including a central green space; pedestrian pathways and paseos; two clubhouses, each with a pool and fitness center; dog parks; a

children's playground; and barbeque and lounge areas. These recreational amenities are intended to meet City requirements for open space ~~and parkland~~. Through coordination with CRPD ~~Furthermore~~, the City would ~~may~~ require payment of development impact fees pursuant to Chapter 22.170.020 of the City's Municipal Code. These fees would be used to fund CRPD park improvements to offset and accommodate the anticipated increased use of the parks and recreation system. In addition, the project site would be annexed into the Villages at Zinfandel Community Facilities District No. 01-01 to address the long-term maintenance associated with park facility use attributed to residents of the ~~from~~ new ~~residential~~ development. Because the Residences Project would be subject to City requirements for minimum open space and parkland standards, the Residences Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered public park facilities.

Other public facilities?

Less than Significant. The Residences Project does not propose new or expanded public facilities because the Residences project site is within a developed area and would be served by existing City facilities, such as the Rancho Cordova Library. The anticipated population of approximately 1,043 residents would increase the use of existing public facilities, such as libraries, in the City. The Residences Project would be subject to development impact fees to fund public facilities improvements to offset their increased use from new residential development. Therefore, the Residences Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered public facilities.

3.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Recreation.				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

3.16.1 Environmental Setting

Section 3.15.1 includes a summary of the existing public parks and recreational facilities within 1 mile of the project site.

3.16.2 Discussion

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less than Significant. As discussed in Section 3.15.2(a), the Residences Project is anticipated to have a residential population of approximately 1,043 residents that could increase the use of existing parks and recreational facilities. According to the City's General Plan, the City requires all new residential development to dedicate 1.75 acres of open space land and 5 acres of parkland per 1,000 population. The City reviews proposals for new residential development to ensure compliance with the City's minimum open space and parkland standards. As described in Section 2, "Project Description," the Residences Project would provide recreational amenities for residents, including a central green space; pedestrian pathways and paseos; two clubhouses, each with a pool and fitness center; dog parks; a children's playground; and barbeque and lounge areas. These recreational amenities are intended to meet City requirements for open space ~~and parkland. Furthermore, the City may require payment of development impact fees to fund CRPD park improvements to offset the increased use of parks from new residential development. Because the Residences Project would be subject to City requirements for minimum open space and parkland standards, the Residences Project would not cause substantial physical deterioration of existing parks or recreational facilities to occur or be accelerated.~~

The Residences Project would also be subject to CRPD requirements for recreational facilities. The project would be conditioned on provision of funding through payment of development impact fees pursuant to Chapter 22.170.020 of the City's Municipal Code and would be annexed into the Villages at Zinfandel Community Facilities District No. 01-01. These fees would be used to fund improvements to the existing parks and recreation system to accommodate anticipated use and to address the long-term maintenance associated with park facility use attributed to residents of the new development. With adherence to these standards, the Residences Project would not cause substantial physical deterioration of existing parks or recreational facilities to occur or be accelerated.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Less than Significant. As described in Section 3.16.2(a), the Residences Project would provide recreational amenities for residents. The environmental impacts associated with construction of these recreational amenities are evaluated in Sections 3.1 through 3.21 of this Initial Study and no significant adverse physical effects were identified.

3.17 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Transportation.				
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

3.17.1 Environmental Setting

The transportation impact analysis presented in this section is based primarily on the *Residences at Capital Center Transportation Impact Study* (TIS) prepared by Kimley Horn (2021). The TIS, which is included as Appendix F, provides additional data and information related to the transportation analysis.

ROADWAY NETWORK

Access to the Residences Project site is provided by the surrounding roadway network which includes highway United States Route (U.S. 50), Sunrise Boulevard, Zinfandel Drive, and White Rock Road.

Highways

The following highway is operated and maintained by Caltrans and provides regional access to the Residences Project site:

- **U.S. 50** is an east-west freeway that traverses the United States from Sacramento, California to Ocean City, Maryland. In the vicinity of the Residences Project, U.S. 50 connects the City of Rancho Cordova with the City of Sacramento to the west and the County of El Dorado to the east. Located approximately three quarters of a mile north of the Residences Project site, U.S. 50 can be accessed via the Sunrise Boulevard and Zinfandel Drive interchanges. U.S. 50 has five lanes in each direction within the vicinity of the Residences Project site.

Roadways

The primary roadways in the vicinity of the Residences Project site include:

- **Sunrise Boulevard** is a bidirectional six-lane arterial roadway east of the Residences Project site connecting to north Rancho Cordova and Placer County while providing access to U.S. 50. The speed limit on Sunrise Boulevard is 45 miles per hour (mph).
- **Zinfandel Drive** is a bidirectional six to eight-lane arterial roadway that serves travel in the north-south directions connecting the Residences Project site to U.S. 50 via White Rock Road. The speed limit is 40 mph.

- White Rock Road is a six-lane east-west arterial roadway. White Rock Road connects Sunrise Boulevard and Zinfandel Drive within the southern half of City's jurisdictional limits. White Rock Road is located north of the Residences Project site. There are no bicycle facilities present on White Rock Road between Zinfandel Drive and Sunrise Boulevard; however, pedestrian facilities exist along the roadway.
- Kilgore Road is a bidirectional, four-lane roadway with no median accommodating north-south travel. Kilgore Road is located along the west boundary of the Residences Project site and has a posted speed limit of 40 mph. Primary vehicle access to the Residences Project would be provided from Kilgore Road. Class II bike lanes and pedestrian facilities are present on each side of Kilgore Road.
- International Drive, located south of the Residences Project site, is an east-west bidirectional six-lane roadway. Emergency vehicle access would be provided to International Drive. Class II bike lanes and pedestrian facilities are located along each side of International Drive.
- Crawford Drive is an existing bidirectional, two-lane private roadway located just north of the existing commercial building. Crawford Drive would provide access to the multi-family residential portion of the Residences Project.

BICYCLE AND PEDESTRIAN FACILITIES

The bicycle network in the City is composed of pathways, bike lanes, and bike routes. These bicycle facilities are classified in the Bicycle Master Plan as follows:

- Class I Pathways are off street facilities dedicated exclusively to use by bicyclists, pedestrians, and in some cases, equestrians, and other non-motorized travel such as roller skating and skateboarding.
- Class II Bike Lanes delineate a portion of the street for bicyclists.
- Class III Bike Routes are routes where the travel lane is shared by drivers and bicyclists. Class III routes are generally designated on roadways with low levels of motor vehicle traffic where bicycles may share the travel lane.

As of 2016, the City had 235 total miles of roadways and 17 miles of on-street bikeways and 14 miles of off-street paths (City of Rancho Cordova 2016:2-3). In the vicinity of the Residences Project site, Class II bike lanes exist on Kilgore Road and International Drive. Pedestrian facilities exist on Kilgore Road, International Drive, White Rock Road, and Zinfandel Drive. Sunrise Boulevard has pedestrian facilities present on the west side of the roadway between the U.S. 50 eastbound and westbound ramps. The Folsom South Canal bike path, a 15.5-mile Class I bicycle facility, is located east of the Residences Project site.

TRANSIT SYSTEM

Sacramento Regional Transit (SacRT) provides transit services in the Sacramento region. SacRT operates over 80 bus routes, 43 miles of light rail, and provides paratransit services for individuals who are American with Disabilities Act certified.

Bus routes 175, 176, and 177, also known as CordoVan, operate in the vicinity of the Residences Project site. Bus route 175 operates between the hours of approximately 6:30 a.m. and 7:00 p.m., Monday through Friday with one-hour headways. Bus route 176 operates between the hours of approximately 5:30 a.m. and 7:30 p.m., Monday through Friday with one-hour headways. Bus route 177 operates between the hours of 6:00 a.m. and 7:00 p.m., Monday through Friday with 15-minute headways. Bus routes 175, 176, and 177 do not provide service on Saturday or Sunday.

Bus routes 175, 176, and 177 connect riders originating south of U.S. 50 near the Zinfandel Drive exit with the Zinfandel light-rail station. The Zinfandel light-rail station is served by the SacRT light rail Gold Line which provides service to both Sacramento and Folsom in either direction, and is approximately 1.5 miles north of the Residences Project site. The Sunrise Station and Cordova Town Center Station are both 1.6 miles north of the Residences Project site.

REGULATORY SETTING

Senate Bill 743

SB 743, passed in 2013, required OPR to develop new State CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

In December of 2018, OPR published the most recent version of the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory) which provides guidance for VMT analysis. The Office of Administrative Law approved the updated State CEQA Guidelines and lead agencies had an opt-in period until July 1, 2020 to implement the updated guidelines as they related to VMT. As of July 1, 2020, implementation of Section 15064.3 of the updated CEQA Guidelines is required statewide.

The OPR Technical Advisory states that lead agencies may screen out VMT using project size, maps, transit availability, and provision of affordable housing. Many agencies use these screening thresholds to identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study. These screening thresholds are identified below:

- *Small Project* – Projects that generate or attract fewer than 110 trips per day generally may be assumed to result in a less-than-significant transportation impact.
- *Map-Based Screening for Residential and Office Projects* – Residential and office projects located in areas with low VMT, and that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT. Maps created with VMT data, for example from a travel survey or a travel demand model, can illustrate areas that are currently below threshold VMT. Because new development in such locations would likely result in a similar level of VMT, such maps can be used to screen out residential and office projects from needing to prepare a detailed VMT analysis.
- *Presumption of Less Than Significant Impact Near Transit Stations* – Lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor will have a less-than-significant impact on VMT.
- *Presumption of Less Than Significant Impact for Affordable Residential Development* – Adding affordable housing to infill locations generally improves jobs-housing match in turn shortening commutes and reducing VMT. Further, low-wage workers in particular would be more likely to choose a residential location close to their workplace if one is available. In areas where existing jobs-housing match is closer to optimal, low-income housing nevertheless generates less VMT than market-rate housing. Therefore, a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less-than-significant impact on VMT.

City of Rancho Cordova Transportation Impact Guidelines

The City developed and adopted the Transportation Impact Guidelines following the passage of SB 743, which shifted the evaluation of transportation impacts from LOS to VMT. The Transportation Impact Guidelines describe the CEQA analysis for transportation impacts that shall be used in the City including the following screening criteria applicable to the Residences Project which describes project-types that can be presumed to cause a less-than-significant impact pertaining to VMT:

- Residential Located in a VMT Efficient Area: The project is a residential project located in a VMT "efficient area" (in an area with 15% or more below the base year regional average household VMT/capita) based on location-based screening maps prepared by the City using the focused version of SACOG's SACSIM19 regional model.
- Office/Business Professional Employment Project Located in a VMT Efficient Area: The project is an office/business-professional project located in a VMT "efficient area" (15% or more below the base year city-wide

average VMT/employee) based on the location-based screening maps prepared by the City using its focused version of SACOG's SACSIM19 regional model.

- Proximity to Transit: A residential, retail, and office/business professional projects, as well as projects that are a mix of these uses, that are located within ½ mile of an existing or planned major transit stop (or along a high-quality transit corridor).
- Small Project: The project is a small project defined as generating less than 237 daily unadjusted trips ends using the latest ITE trip generation rates/procedures or a project-specific trip generation analysis reviewed and accepted by the City.
- Local-Serving Retail Project: A retail (or recreational) project is local-serving if it is consistent with the land uses listed in Appendix A and has a gross floor area no more than the following:
  - 125,000 sq. ft., if located within the City's Infill Area
  - 200,000 sq. ft., if located within the City's Growth Area A retail project may also be defined as local-serving if a market study demonstrates that it is based on the size of its market area. Adding retail square footage (even if it is less than the gross floor area listed above) to an existing "regional" retail shopping area is not screened out. Hotels and motels are not considered local serving retail.
- Affordable Housing: The project is affordable based on the City's criteria for affordable housing. Only the portion of the project that meets the City's criteria is screened out. For example, if the project is 100 units with 10 affordable housing units, transportation VMT analysis would not be necessary for the 10 affordable units but would be necessary for the remaining 90 units (unless they meet one of the other screening criteria). For purposes of applying the small project screening criteria, the applicant would only include the trip generation for the nonaffordable housing portion of the project (since the affordable housing portion is screened out).
- Mixed Use Project Screening Considerations: The project's individual land uses should be compared to the screening criteria above. It is possible for some of the mixed-use project's land uses to be screened out and some to require further analysis. For purposes of applying the small project screening criteria, the applicant would only include the trip generation for portions of the project that are not screened out based on other screening criteria. For example, if a project includes residential and retail, and the retail component was screened out because it is locally serving; only the trip generation of the residential portion would be used to determine if the project meets the definition of a small project (City of Rancho Cordova 2020:Table 1).

City of Rancho Cordova General Plan

The Circulation Element, updated in 2015, provides goals, policies, and actions regarding the City's transportation network. The policies and actions within the General Plan relevant to the Residences Project are provided below:

- Policy C.2.1: Create a system of on- and off-street trails and multi-use paths, as generally illustrated on Figure C-2, that are used for walking and bicycling and that are attractive, natural, and safe transportation corridors.
- Policy C.2.2: Require bicycle and pedestrian connections to public transit systems at stops, stations, and terminals; carpool/vanpool park-and-ride lots; and activity centers (e.g., schools, community centers, medical facilities, senior residences, parks, employment centers, high-density residential areas, commercial centers).
- Policy C.2.3: In designing development projects, design for the pedestrian first.
  - Action C.2.3.1: Require pedestrian circulation routes to be designed into all land plans and subdivisions to ensure that access for the pedestrian is provided. Pedestrian routes shall be interconnected and may include open spaces, parks, and trails as otherwise required by the City.
  - Action C.2.3.2: Require and site pedestrian crossings of major roads at key intersections and at locations that provide priority and efficiency to the pedestrian, even at the expense of improved vehicular circulation.
  - Action C.2.3.3: Ensure safe, efficient pedestrian connections are made between the sidewalk, parking areas, and entrances to stores, offices, and other uses as part of development design review.

- Policy C.2.8: Promote bicycling and walking as a safe and attractive activity. Educate all road users to share the road and interact safely.
  - Action C.2.8.5: Provide signage, alternative routes, etc. during construction activities affecting bikeways to ensure the safety of cyclists.
- Policy C.3.3: Promote the integration of transit facilities into new development.
  - Action C.3.3.1: Require new development and redevelopment to include public transit stations, especially light rail stations, and to promote pedestrian activity and connection between public transit and retail, office, and residential uses.
  - Action C.3.3.2: Consistent with the Transit section of the Circulation Plan and the Transit Master Plan, require development to dedicate the necessary right-of-way needed to accommodate planned transit services.

City of Rancho Cordova Bicycle Master Plan

The Bicycle Master Plan presents existing conditions, proposes infrastructural and programmatic improvements, and recommends funding mechanisms to increase bicycle safety and use in the City. The following policies are relevant to the Residences Project:

- Policy 1.1: Ensure all bicycle facilities, including grade separated crossings, meet the City of Rancho Cordova's design and construction standards.
- Policy 2.2: All development projects shall be reviewed by City staff for consistency with the goals, policies and actions of the Bicycle Master Plan.
- Policy 2.2: Where construction is adjacent to Class II or Class III bikeways, require the developer or contractor to maintain a clear and clean travelway for cyclists.
- Policy 2.4: Ensure bicycle trail projects minimize environmental impacts, to the extent feasible.
- Policy 3.2: All development projects shall include bicycle support facilities, to the extent feasible.
- Policy 3.3: Bicycle parking shall be provided at all major employment and retail sites.
- Policy 3.3: Encourage all employers to offer showers and changing facilities.
- Policy 7.2: Encourage development projects that make bicycling a convenient and desirable form of transportation by providing a mix of land uses in close proximity to one another, and safe bicycle network connections and support facilities (City of Rancho Cordova 2016:A-2).

3.17.2 Discussion

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less than significant.

Bicycle and Pedestrian Facilities

The Residences Project would provide green space and pedestrian pathways throughout the project site connecting bicyclists and pedestrians with the Class I Folsom South Canal bike path to the east of the project site. Additionally, the Residences Project would provide off-site improvements on Kilgore Road to accommodate a pedestrian crosswalk providing access to a future pathway which would lead to Capital Village that include employment and retail uses. As required by Municipal Code Section 23.719.110 (Bicycle Parking Requirements), the Residences Project would provide bicycle parking stalls for short term use in the commercial area and secure bicycle parking stalls in the residential portion for long-term tenant use, satisfying City Bicycle Master Plan Policy 3.3. The Residences Project does not involve any additional bicycle facility improvements; however, the project would enhance the environment for pedestrians and bicyclists in the vicinity of the project and facilitate connections between visitors, residents, and

the regional bicycle network. The Residences project would construct a mix of residential and retail uses within the project site aligning with City Bicycle Master Plan Policy 7.2, which encourages the use of active transportation by locating different land uses within close proximity of one another and providing safe connections for people walking and bicycling in the area. Therefore, the Residences Project would not conflict with any programs, plans, ordinances, or policies addressing pedestrian and bicycle facilities.

Transit Service

The Residences Project is located approximately 1.6 miles from the nearest Gold Line light rail transit station along Folsom Boulevard. From the Residences Project site, visitors and residents would have access to the Gold Line light rail service via CordoVan bus routes 175 and 176 operated by SacRT. The Residences Project would encourage transit use in the area due to it being mixed-use, infill development. The Residences Project would promote pedestrian activity and connection between commercial and residential uses as described in General Plan Action C.3.3.2 and comply with the policies regarding transit service. Additionally, the Residences Project would not reconstruct or reconfigure the surrounding roadway network including the alteration of any existing transit stops. Therefore, the Residences Project would not conflict with any programs, plans, ordinances, or policies addressing transit service or facilities.

Summary

The Residences Project would provide an enhanced environment for pedestrians by including open space and pathways within its internal circulation design. The pathways would integrate with the existing bicycle network including the Class I Folsom South Canal bike path to the east of the Residences Project site. Additionally, the Residences Project would provide supporting bicycle facilities such as bicycle parking in the commercial area to comply with municipal code requirements and Bicycle Master Plan policies. The Residences Project would not conflict with transit facilities and all nearby bus stops would remain as is. For these reasons, the Residences Project would not conflict with the programs, plans, policies, or ordinances addressing the circulation system.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

Less than Significant. As described below, construction of the Residences Project is not expected to substantially increase regional VMT. In addition, the City has determined that the project satisfies two of the screening criteria in the City's Transportation Impact Guidelines, indicating that the project would result in less-than-significant operational VMT impacts.

Construction

The VMT of construction workers is not newly generated; instead, it is redistributed throughout the regional roadway network based on the different work sites to which workers travel to each day. Therefore, construction workers are not generating new VMT each day, only redistributing it. Additionally, even if the trips generated during construction were considered to be new trips, construction workers are expected to generate an average of 99 trips per day, assuming that construction workers would not carpool and would generate two trips per worker per day. Therefore, the number of daily construction trips generated would be fewer than the City's Transportation Impact Guidelines screening threshold for small projects (i.e., 237 trips per day) and OPR's Technical Advisory threshold of 110 daily trips. Further, Residences Project construction activities would be temporary and intermittent in nature occurring over 3 years; and thus, would not result in long-term increases in vehicular trips. Therefore, construction activities are not expected to substantially increase VMT in the region.

Operation

As presented above, the City's Transportation Impact Guidelines describe project-types that can be presumed to cause a less than significant VMT impact. The City has determined that the Residences Project satisfies two of the screening criteria; it would be located in a VMT-efficient area and is in proximity to transit. As detailed above, the Residences Project site would be served by CordoVan bus routes 175, 176, and 177. Bus route 177 operates on weekdays with 15-minute headways providing direct access to the Gold Line light rail service at Zinfandel Station. The City's Transportation Impact Guidelines screen projects within 0.5 mile of an existing or planned major transit stop or

an existing stop along a high-quality transit corridor. A high-quality transit corridor is defined as "a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours" (City of Rancho Cordova 2020:8). The nearest Route 177 bus stop is located at the intersection of International Drive and Prospect Park Drive approximately 0.4 miles west of the Residences Project site's proposed southern access point along International Drive. Moreover, an analysis performed in 2020 using location-based screening maps prepared by the City determined that the project site is in a residential area with less than significant VMT impact based on proximity to transit and VMT per capita less than 85 percent of the regional average (Lum, pers. comm. 2022).

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than Significant. As described below, construction and operations of the Residences Project would be required to follow all local regulations related to design and safety. The Residences Project design is subject to plan review and an encroachment and traffic control permit is required for all off-site improvements. Additionally, the TIS found that the Residences Project would result in minimal turn movement and ingress/egress conflicts at the project's access points.

Construction

Construction activities are anticipated to occur over a 3-year period beginning in August of 2022. The Residences Project applicant is required to obtain an encroachment permit for any construction activity within roadway right of way (City of Rancho Cordova Municipal Code Section 12.08.020) including off-site improvements, such as the proposed pedestrian crosswalk on Kilgore Road. The encroachment permit requires the submittal of a traffic control permit for review and approval by the City Public Works Department for any work requiring modification of existing traffic patterns. The traffic control permit would demonstrate appropriate traffic handling during construction activities for all work that will or may impact the traveling public and mandates that pedestrian and bicycle access must be maintained at all times (City of Rancho Cordova 2010). Therefore, the Residences Project would not substantially increase hazards during construction.

Operation

The Residences Project would include a 240-unit multi-family development, 177-units of townhomes, and a commercial-retail component with open space and pathways provided throughout the project site. Internal circulation for vehicles, bicyclists, and pedestrians would be required to follow the City's Design Guidelines: *Provisions for a Quality Community*. Additionally, the Residences Project would follow site design standards set forth in the City Municipal Code including those in Section 23.707.040 pertaining to pedestrian access and open space, Section 23.719.090 regarding parking design standards, and Section 23.722.050 related to on-site pedestrian pathway standards. Vehicular access would be provided via two separate gated entrances from side streets off of Kilgore Road. As identified by the TIS, minimal turn movement/access conflicts are anticipated for the analysis scenarios as both entrances are set back from Kilgore Road. Access to the Residences Project commercial component would be provided via a dedicated driveway on the northern edge of the site connecting directly to Kilgore Road. The Residences Project would provide adequate site distance at all access points. Additionally, the Residences Project plans are subject to review by the City Building & Safety Division and Public Works Department ensuring City standards including those pertaining to site accessibility and safety are met. Therefore, the Residences Project would not substantially increase hazards during operations.

d) Result in inadequate emergency access?

Less than Significant. The project site is in an urban area with an established roadway network. The surrounding roadways provide adequate circulation and access for emergency response. Project-related construction activities have the potential to result in short-term, temporary impacts to surrounding roadways from partial lane closures or the presence of construction vehicles, which may cause temporary traffic slowdown. Any impacts associated with construction activities would be temporary in nature and would be generally confined to the project site. Furthermore, construction activities would not affect access on any major roadways that may serve as emergency evacuation routes for the region, such as U.S. 50. All construction activities would be subject to emergency access standards and requirements of SMFD to ensure traffic safety. Chapter 33 of the 2019 California Fire Code contains

applicable standards for fire safety during construction and demolition including required provisions for emergency access. As detailed in item c, the Residences Project is required to obtain an encroachment permit and submit a traffic control plan for work within public right of way which would demonstrate safe traffic handling during construction including maintaining adequate emergency access. Additionally, emergency access would be subject to review by the City and responsible emergency service agencies; thus, ensuring the project would be designed to meet all applicable emergency access and design standards.

The final site plan for the project would also be subject to approval by the SMFD. Three emergency vehicle access points are provided for the residential components of the Residences Project including access to International Drive and Crawford Drive. The Residences Project design is required to follow the standards and regulations set forth in the 2019 California Building Standards Code, Title 24, California Code of Regulations, Part 9 (2019 California Fire Code) as adopted by the City (City of Rancho Cordova Municipal Code Chapter 17.04). Appendix D of the 2019 California Fire Code provides minimum dimensions and design standards for fire apparatus roads in order to maintain adequate emergency access during operations of commercial and residential developments. For these reasons, the Residences Project would not result in inadequate emergency access.

3.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources.				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?		☒ Yes		☐ No
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

3.18.1 Environmental Setting

AB 52, signed by Governor Edmund G. Brown, Jr., in September 2014, established a new class of resources under CEQA: "tribal cultural resources." AB 52, as provided in Public Resource Code Sections 21080.3.1, 21080.3.2, and 21082.3, requires that lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation once the lead agency determines that the application for the project is complete, prior to the issuance of a NOP of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration.

The NAHC was contacted to request a Sacred Lands File search for known cultural resources within or near the project site. The results of the search returned by the NAHC on December 28, 2021 were positive for Native American cultural resources in the project vicinity. The NAHC provided contact information for tribal members and organizations affiliated with the region, and recommended that they be contacted for more information on the potential for Native American cultural resources within or near the project area. The following tribes were contacted on February 1, 2022, for consultation under AB 52:

- United Auburn Indian Community of the Auburn Rancheria
- Ione Band of Miwok Indians
- Wilton Rancheria

Wilton Rancheria replied on February 15, 2022. Coordination with the tribe indicated no knowledge of tribal cultural resources that may be affected by the project, however, because the NAHC Sacred Lands File search was positive, Wilton Rancheria did request mitigation measures, discussed below. No other tribe responded and, therefore, no tribal cultural resources have been identified in the project area.

3.18.2 Discussion

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a,b) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than significant with Mitigation Incorporated. Although consultation under AB 52 did not result in the identification of tribal cultural resources as defined by PRC Section 21074, the NAHC Sacred Lands File search was positive. Therefore, the possibility exists that tribal cultural resources could be encountered during construction-related ground disturbing activities. This impact is potentially significant.

Mitigation Measure 3.18-1: Retain a Native American Tribal Monitor

The Applicant shall contact Wilton Rancheria at least 30 days prior to ground disturbance to retain a Native American Tribal monitor. The Tribal monitor shall be approved by the Wilton Rancheria and listed under the NAHC's Tribal Contact list for the Project area. A minimum of seven days prior to ground disturbance, the Applicant shall notify Wilton Rancheria of the impending groundwork. Construction activities shall proceed if no response is received within 48 hours.

The Tribal monitor shall only be present onsite during the construction phases that involve ground disturbing activities. The Tribal monitor shall complete daily monitoring logs that describe each day's activities, including construction activities, locations, soil, and any cultural materials identified. The onsite monitoring shall end when the grading and excavation activities are completed, or when the Tribal representatives and monitor have indicated that the site has a low potential for impacting tribal cultural resources. The Applicant shall compensate the Tribal monitor for services.

Mitigation Measure 3.18-2: Protection of Known and Unknown Archaeological Resources

Implement Mitigation Measure 3.5-1 above.

Significance after Mitigation

Implementation of Mitigation Measures 3.18-1 and 3.18-2 would reduce impacts to tribal cultural resources to a less-than-significant level by requiring the retention of a tribal monitor and, in the case of a discovery, appropriate treatment (including options for data recovery, mapping, capping, or avoidance) and proper care of significant tribal cultural resources.

3.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems.				
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

3.19.1 Environmental Setting

The project site is an infill property surrounded by urban development and is already within the service areas of providers for water, wastewater, electricity, solid waste, and telecommunications. Existing utility lines for water, sewer, electricity and gas, and telecommunications, and are located in a joint trench within the roadway right-of-way adjacent to the project site.

WATER

Th project site is within the approximately 12-square-mile Cordova Service Area of the Golden State Water Company (GSWC). GSWC adopted the Cordova Service Area 2020 Urban Water Management Plan (2020 UWMP) in 2021. The UWMP assumes that development and redevelopment of the existing service area will occur as incremental infill in existing commercial areas along major thoroughfares. Growth is based on the growth rates established in SACOG's 2020 MTP/SCS.

GSWC Cordova's water supply portfolio consists of pre-1914 appropriative right from the South Fork of the American River established by the Natoma Water Company in 1851; groundwater supplies from the South American Subbasin of the Sacramento Valley Groundwater Basin; Aerojet GET Settlement Agreement remediated water supply, treated by Carmichael Water District (CWD); and contingent replacement Aerojet supplies. Active management of this diverse

water portfolio and implementation of the water shortage contingency plan provide GSWC Cordova with stable and reliable water service to meet its current and 2045 projected water demands in normal, single dry, and five consecutive dry year scenarios.

In 2020, the agency's public water supply served a total of 14,759 connections (GSWC 2021: 1-2) for a population of approximately 44,050 people. In 2020, the water demand for the service area was 14,206 acre-feet (AF) (GSWC 2021: 4-1). In 2025 and 2045, the projected water demand for normal (non-drought conditions) is estimated to be 13,605 acre-feet per year (AFY) and 15,032 AFY, respectively (GSWC 2021: 4-6), for population estimates of 45,162, and 49,900. The UWMP determined that the agency would have sufficient water supply to meet projected demand for the service area through 2045, even in the event of multiple dry year conditions (GSWC 2021: 5-1).

WASTEWATER

Wastewater conveyance is provided by SacSewer ~~SASD~~, which manages and maintains the region's sewer systems. Wastewater collected in SacSewer's ~~SASD's~~ system is processed at the SRWTP, which is managed by Regional San located at 8521 Laguna Station Road in the City of Elk Grove. The network of pipelines comprising the sewer system collection pipelines are categorized based on their size, function, and flow capacity.

- Collectors generally receive flow directly from individual homes and businesses, are generally 6-10~~8~~ inches in diameter, designed to carry less than 1 million of gallons per day (mgd) wastewater flow.
- Trunk sewers collect flows from collectors and are generally 12-36 inches in diameter, have a flow capacity between one and 10 mgd.
- Interceptors are between 36 and 144 inches in diameter and have a flow capacity of 10 mgd or greater.

DRY UTILITIES

The Sacramento Municipal Utility District would provide electricity and Pacific Gas and Electric would provide natural gas. AT&T would provide telecommunications services.

SOLID WASTE

Republic Services, Inc. would provide solid waste collection services to the project site, and Waste Management (WM) manages local recovery stations and landfills. The Kiefer Road Landfill is classified as a major landfill, which is defined as a facility that receives more than 50,000 tons of solid waste per year and is the only facility in Sacramento County that accepts solid waste from the public (City of Rancho Cordova 2021b: 4-180). Kiefer landfill currently has 117 million cubic yard (58 million tons) total capacity and is divided into 11 modules (City of Rancho Cordova 2021b: 4-180. To date, Kiefer has placed approximately 40 million cubic yards of waste into Modules 1-3, leaving 77 million cubic yards (38 million tons) of available capacity. The maximum tons per day (tpd) allowed at the Kiefer Road Landfill is 10,815 tpd, with an average intake of 6,362 tpd. Currently, the Kiefer Road Landfill is operating below permitted capacity and would have capacity for the next 30 to 40 years based on current disposal rates (City of Rancho Cordova 2021b). Chapters 6.20, "Solid Waste Requirements," 6.21, "Business and Multifamily Recycling and Organics Recycling" describe City requirements related to the provision of solid waste disposal services including collection and transport, waste diversion, and container requirements for commercial, single family residential, and multifamily residential waste generators. The California Integrated Waste Management Act of 1989 (AB 939) required a diversion of a minimum of 50 percent of discarded materials away from disposal in landfills.

3.19.2 Discussion

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant. The project would result in the construction of 417 housing units, consisting of 240 multifamily units and 177 townhome units, supporting community facility uses, and 5,000 sq. ft. of commercial space in a vacant parcel surrounded by existing urban development. The residential land use on the vacant project site would result in demand for water, wastewater, electricity, and telecommunications facilities. Connections to main lines for water, sewage, telecommunications, and electricity exist in the right-of-way of the roadways adjacent to the project site. For example, an existing water main is located along Kilgore Road, adjacent to the west side of the project site.

Utility infrastructure improvements to the site would consist of placing pipe connections from the project site to the existing water main, sanitary sewer interceptors, and existing storm drainage features. Other improvements would include the connection of fire hydrants and related water connections, manholes to access utility lines, and water meters. The effects of constructing on-site utility connections and stormwater drainage are included in the analysis of other ground-disturbing construction activities associated with development of the project. Impacts pertaining to grading, soils, and stormwater are addressed in Section 3.7, "Geology and Soils," and 3.10, "Hydrology and Water Quality."

As discussed in items b) through c) below, the capacity of off-site infrastructure for utilities including water supply, sewage treatment plant capacity, and landfill capacity supporting the project site would be sufficient to accommodate the project. Impacts pertaining to energy are discussed in Section 3.6, "Energy"- the construction of new or expanded energy production facilities would not be required. New capacity for utility services including water, wastewater, electricity and gas, and solid waste disposal would not be required and, therefore, the construction of new, off-site utility infrastructure that could result in significant environmental effects would not be required.

b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than Significant. As described above, GSWC Cordova's 2020 Urban Water Management Plan (UWMP) assumed infill development and population growth based on SACOG population projections. The Residences Project is the type of development anticipated in the plan and represents approximately 18 percent of the population growth assumed in the UWMP between 2020 and 2045.

The 2020 UWMP identified the following average Unit Demand Factors based on the 2016 to 2020 period: 3.46 AFY for multifamily connections and 3.50 AFY for commercial/industrial connections demand (GSWC 2021: 4-5). The project would construct 177 single-family townhomes and 240 multi-family apartment units with an estimated 29 total connections and a commercial component for which two connections are assumed. The estimated annual water demand would be 107.34 AFY. The water demand from the Residences Project would be approximately 13 percent of the increase in water demand anticipated during normal years between 2020 and 2045.

The 2020 UWMP estimated that, in the event of multiple-year drought conditions, the supplier would have reliable water supplies for the service area through 2045 for a projected population of 49,900. Due to conjunctive management and a Water Shortage Contingency Plan, the 2020 UWMP projects adequate supply to meet demand in all water years through 2045.

The proposed project is consistent with the type of infill development assumed in GSWC Cordova's 2020 UWMP. Normal water year demand is assumed in increase by 826 AFY (from 14,206 to 15, 032 AFY) between 2020 and 2045. Based on the historic demand per connection factors used in the UWMP, the project would require 107.34 AFY of water. This is accounted for in the projected increase in water demand evaluated in the UWMP, which concludes that there is sufficient supply to serve anticipated development through 2045. Therefore, while the project would result in

additional demand for water, existing water supplies are estimated to be sufficient to serve the project site, even within the event of multiple dry-year conditions.

c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?

Less than Significant. The project is located within the service area of SacSewer ~~SASD~~, which manages the sewer system and serves much of Sacramento County, including the City of Rancho Cordova. Wastewater treatment services are provided by the SRWTP. An upgrade of the SRWTP is currently under way. The upgrade, known as the EchoWater Project, must be built by 2023 to meet new water quality requirements that were issued by the Central Valley RWQCB as part of Regional San's 2010 NPDES permit. The requirements are designed primarily to help protect the Delta ecosystem downstream by removing most of the ammonia and nitrates and improving the removal of pathogens from wastewater discharge. The upgrade will include deployment of new treatment technologies and facilities, and will increase the quality of effluent discharged into the Sacramento River and ensure that the SRWTP discharge constituents are below permitted discharge limits specified in the NPDES permit. Flows to the SRWTP have decreased as a result of water conservation efforts over the last 10 years. Further, adequate capacity for wastewater is anticipated well into the future. Flows in 2014 were approximately 141 million gallons per day (mgd), compared to the current permitted capacity of 181 mgd. It is not anticipated that Regional San will need to consider further improvements to the SRWTP until after 2050. The SRWTP has a permitted dry weather flow design capacity of 181 mgd (Rancho Cordova 2006b: 4.12-38).

Wastewater would be conveyed off the project site using a network of collectors (up to 1 mgd flow capacity) and trunk sewers (1-10 mgd flow capacity). These sanitary sewer lines would then connect to the district's sewer system by connecting to an existing interceptor line located along Kilgore Road that is 72 inches in diameter (RSC Engineering, 2021b), which has a flow capacity of greater than 10 mgd.

The project would construct 417 housing units and 5,000 sq. ft. (or 0.1149 acres) of commercial space. The City's 2006 general plan identified that a single-family dwelling generated approximately 310 gallons per day of wastewater flows, called Equivalent Single-Family Dwellings, and that commercial development generated approximately 6 Equivalent Single-Family Dwelling worth of wastewater flows per acre. Using these factors, the project is estimated to generate approximately 129,500 gallons per day, which is equivalent to 0.13 mgd.

The project would collect the 0.13 mgd generated wastewater from each connection through the series of collectors and trunk sewer lines, which would flow into the existing interceptor along Kilgore Road with a flow capacity of greater than 10 mgd. The wastewater generated by the project would be 0.01 percent of a 10 mgd flow capacity. Therefore, existing utility infrastructure, including the interceptor sewer line on Kilgore Road and the SRWTP would have sufficient capacity to accommodate the wastewater flows that the project is estimated to generate.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant. Municipal waste services to the project site are provided by WM and Republic Services, Inc. Municipal and commercial waste generated at the site would be disposed of at the Kiefer Road Landfill. The project would generate household and commercial solid waste, including organic waste and recyclable material.

CalRecycle determined that the average disposal rate, after waste diversion efforts occur in compliance with state regulations, was 4.2 pounds per person per day (CalRecycle 2021). The project is estimated to add an additional population of 1,126 people which would produce 4,729 lbs/day or 2.4 tons per day (tpd). Since the number of employees resulting from the proposed commercial spaces are not yet determined, a per area generation rate is used. CalRecycle (2019) provides a generation rate of 5 pounds (lbs)/1000 sq. ft./day for commercial land uses. Per this estimate, 5,000 sq. ft. of commercial space would generate approximately 25 lbs/day. The total solid waste produced from the project would be approximately 4,750 lbs/day, or approximately 2.4 tons/day. The Keifer Landfill receives approximately 6,300 tpd, and is permitted to accept up to 10,800 tpd (City of Rancho Cordova 2019: 3.14-20) and is

expected to accept waste until 2064. The project would not generate waste in excess of local standards or in excess of the capacity of local infrastructure and would not impair the attainment of the City's per capita waste reduction goals.

e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant. Municipal solid waste services to the project site are provided by WM and Republic Services, Inc. Municipal and commercial waste generated at the site would be disposed of at the Kiefer Road Landfill. The project's residential and commercial land uses would be provided with trash, recycling, and organics disposal services in accordance with local, state, and federal regulations. The project would, therefore, comply with regulations including the City's ordinances and AB 939. The Project would not fail to comply with federal, state, and local management and reduction regulations related to solid waste.

3.20 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Wildfire.				
Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones?				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	☐ Yes			☒ No
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

3.20.1 Environmental Setting

According to the California Department of Forestry and Fire Protection, the project site is within a non-VHFHSZ in a local responsibility area (CAL FIRE 2008). The project site is not in an area susceptible to wildland fires and the surrounding properties are fully developed. Vegetation associated with adjacent development consists of ornamental landscaping that is regularly irrigated and maintained and is not considered a fire hazard. The topography of the project site is generally flat and there are no steep slopes within or adjacent to the project site.

As discussed in Section 3.9.1, the City adopted the SCMDP to address planned response to emergency situations. Major roadways, such as U.S. 50, may serve as emergency evacuation routes for the region.

3.20.2 Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, no impact would occur. As discussed in Section 3.9.3(f), the project site is in an urban area with an established roadway network. The surrounding roadways provide adequate circulation and access for emergency response. Project-related construction activities have the potential to result in short-term, temporary impacts to surrounding roadways from partial lane closures or the presence of construction vehicles, which may cause temporary traffic slowdown. Any impacts associated with construction activities would be temporary in nature

and would be generally confined to the project site. Furthermore, construction activities would not affect access on any major roadways that may serve as emergency evacuation routes for the region, such as U.S. 50. All construction activities would be subject to emergency access standards and requirements of SMFD to ensure traffic safety.

The project would not permanently modify any roads, result in permanent road closures, or otherwise affect emergency response times. Therefore, the project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. As discussed in Section 3.10.1, the project site is not in an area susceptible to wildland fires and the surrounding properties are fully developed. Vegetation associated with adjacent development consists of ornamental landscaping that is regularly irrigated and maintained and is not considered a fire hazard. The topography of the project site is generally flat and there are no steep slopes within or adjacent to the project site. Because the Residences project site does not contain features that would exacerbate wildfire risks, and the project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones, the project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The Residences Project would involve the construction of residential and commercial land uses in a developed and urban area. No roads, fuel breaks, emergency water sources, or new power lines are proposed. The project design would be required to comply with the most current building and fire codes, which include requirements for hydrant spacing, fire flow, access and roadway requirements, and limitations on materials used. Compliance with these requirements would reduce fire-related hazards associated with the proposed development. The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones and would not exacerbate fire risk or result in temporary or ongoing impacts to the environment.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, no impact would occur. As discussed in Section 3.7.2(a)(iv), the potential for landslides to occur is negligible because the topography is generally flat and there are no steep slopes within or adjacent to the project site. In addition, as discussed in Section 3.10.1, the Residences project site is within an area of minimal flood hazard (FEMA 2012). The Residences Project would change the drainage patterns of the project site by increasing impervious surfaces; however, the proposed development would be designed to meet the stormwater quality requirements of the SQDM for the Sacramento Region to prevent drainage, flooding, and erosion impacts from site runoff (see Section 3.10.2[c] for additional information). Therefore, the Residences Project would not expose people or structures to significant risks from runoff, post-fire slope instability, or drainage changes.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Mandatory Findings of Significance.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.21.1 Environmental Setting

The environmental setting for this section is presented above in the environmental settings for each of the checklist issue areas. No additional environmental setting is necessary.

3.21.2 Discussion

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation Incorporated. Based on evaluations and discussions contained in Sections 3.1 through 3.20 of this Initial Study, the Residences Project is not anticipated to substantially degrade the quality of the environment. As discussed in Section 3.4, "Biological Resources," the Residences Project would implement the SSHCP through Mitigation Measure 3.4-1. Therefore, the Residences Project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. In addition, as discussed in Section 3.5, "Cultural Resources," and Section 3.7, "Geology and Soils," no historical,

archaeological, or paleontological resources were identified on the Residences Project site. Although unlikely, ground-disturbing activities during project construction may result in the unanticipated discovery of archaeological or paleontological resources; however, the City requires that specific procedures be followed in the event of unanticipated discoveries (refer to Sections 3.5 and 3.7 for additional information) as a condition of project approval. Therefore, the project would not eliminate important examples of the major periods of California history or prehistory.

b) Does the project have impacts that are individually limited, but cumulatively considerable?

Less than Significant with Mitigation Incorporated. The Residences Project would not result in significant cumulatively considerable impacts for the following reasons:

- The Residences Project would not contribute to the cumulative condition for agricultural and forest resources, biological resources, cultural and tribal cultural resources, and mineral resources due to the lack of Important Farmland and forest land, known mineral resources, known historic and archaeological resources, and sensitive species or habitat at the project site.
- Impacts related to geology, soils, hazards and hazardous materials are generally site-specific and would not contribute to the cumulative condition.
- The project would be consistent with existing land use and zoning designations for the project site, the City's Municipal Code and ordinances, and the City's Design Guidelines. In addition, population growth from the Residences Project would be consistent with the type of growth anticipated in the City's General Plan. Therefore, the Residences Project would not contribute to the cumulative condition for aesthetics, land use and planning, population and housing, public services, recreation, and wildfire.
- The Residences Project would increase impervious surfaces and change drainage patterns within the watershed; however, the Residences Project would not contribute to the cumulative condition for hydrology and water quality because the proposed development would be designed to meet the stormwater quality requirements of the SQDM for the Sacramento Region.
- With respect to air quality, energy, noise, transportation, and utilities, the project would be a infill development in a VMT-efficient area that is consistent with the existing land use designation and the population assumptions for the area. GHG emissions impacts, which are inherently cumulative, would be reduced to less than significant with mitigation.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant with Mitigation Incorporated. The project's potential effects on the way residents experience the existing environment (aesthetics) and plans for future use of the area (land use and population and housing) would be less than significant. Elements of the project that could physically affect sensitive populations, including air quality impacts and generation of noise, were also found less than significant. GHG emissions, which are understood to result in global warming, would be reduced to a less-than-significant level with the implementation of mitigation.

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Appendix A

Architectural Exhibits

Appendix B

Aquatic Resources Assessment

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South Sacramento Habitat Conservation Plan Avoidance and Minimization Measures

Appendix D

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Appendix E

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Appendix F

Traffic Impact Study

Appendix B

Aquatic Resources Assessment

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22 October 2021

Darcy Goulart
Planning Manager
City of Rancho Cordova
Planning Division
2729 Prospect Park Dr.
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Subject: Aquatic Resources Assessment for the Capital Center Project, City of Rancho Cordova, Sacramento County, California

Dear Ms. Goulart:

This letter presents the results of an aquatic resources assessment of the Capital Center Project site (Study Area) performed by Madrone Ecological Consulting, LLC (Madrone) at the request of GGC HWY 50 LLC. The approximately 25-acre Study Area is located generally northeast of the intersection of Kilgore Road and International Drive in the City of Rancho Cordova, Sacramento County, California (38.586954, -121.268263). The Study Area consists of APNs 072-0260-053, 072-0260-054, 072-0260-056, 072-0260-051, 072-0680-065, and 070-0680-068.

Methodology

Madrone senior biologist Dustin Brown conducted an aerial photograph review and preformed a visit the site to on 14 October 2021 to determine if aquatic resources were present within the Study Area.

The assessment was performed in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b), and the Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetlands Delineations* (USACE 2016b). U.S. Army Corps of Engineers (USACE) regulations (33 CFR 328) were used to determine the presence of Waters of the United States other than wetlands. The most recent *National Wetland Plant List*, which went into effect on 18 May 2020, was used to determine the wetland indicator status of plants observed in the Study Area (USACE 2020). The *Jepson eFlora* (Jepson Flora Project 2020) was used for plant nomenclature, except where

it conflicted with the nomenclature in the *National Wetland Plant List*, which was given priority.

During the 14 October 2021 site visit Mr. Brown walked the entire Study Area to determine the presence or absence of aquatic resources. During the survey Mr. Brown also noted the soils and vegetation present.

Results

The U.S. Army Corps of Engineers makes legal determinations regarding the presence or absence of wetlands or waters of the U.S. on any given property. However, in our professional opinion, aquatic resources are not present within the Study Area. The Study Area consists of gently rolling terrain. Soils onsite are cobbly loam and appear to be very well drained. Vegetation onsite consists upland non-native annual grasses and forbs associated with fallow and previously disturbed areas such as wild oat (*Avena fatua*), tarplant (*Holocarpha virgata*), soft brome (*Bromus hordeacious*), yellow star thistle (*Centaurea solstitalis*), and bull thistle (*Cirsium vulgare*). No evidence of ponding or saturated soils were observed within the Study Area.

Please contact me with any questions about this survey at (916) 822-3230 or svonderohe@madroneeco.com.

Sincerely,

Sarah VonderOhe

Sarah VonderOhe
Senior Biologist/Principal

cc: Dan Cole/Cole Partners
Rob Cole/Cole Partners
Richard Weng/Cole Partners
Jeremy White/The Grupe Company

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Appendix C

South Sacramento Habitat Conservation Plan Avoidance and Minimization Measures

5.4.1 General Avoidance and Minimization Measures

General AMMs are designed to avoid or minimize effects of Covered Activities on SSHCP land cover types and Covered Species.

Condition 1. Avoid and Minimize Urban Development Impacts to Watershed Hydrology and Water Quality

National Pollution Discharge Elimination System permits are issued by the Regional Water Quality Control Board to jurisdictions in the region, including the jurisdictions that are also SSHCP Land Use Authority Permittees (i.e., County of Sacramento, and Cities of Rancho

[16] In a situation like this, the Local Land Use Authority Permittee will suspend one or more local permits (e.g., grading permit, building permit) until compliance with terms of all SSHCP requirements is demonstrated.

[17] Post-construction monitoring by the Land Use Authority Permittee could continue for several years.

Cordova and Galt). The National Pollution Discharge Elimination System permit is issued to each of the Land Use Authority Permittees every 5 years, and is referred to as the Municipal Separate Storm Sewer System (MS4) permit. MS4 permits contain specific design measures required for all projects constructed within the region. The Stormwater Quality Design Manual for the Sacramento and South Placer Regions (Stormwater Manual) outlines planning tools and requirements to reduce urban runoff from new development and redevelopment projects within the region (Sacramento Stormwater Quality Partnership 2007). The Stormwater Manual is used as a general guidance document to aid with the selection, siting, design, operation, and long-term maintenance of stormwater quality control measures. The Stormwater Manual contains control measures intended to meet the standard of "reducing pollutants in urban runoff to the maximum extent practicable" set forth in the local agencies' MS4 permits issued by the Central Valley Regional Water Quality Control Board. AMM LID-1 (see below) is designed to ensure compliance with MS4 requirements by requiring Third-Party Project Proponents to minimize increases of peak discharge of stormwater and to eliminate or reduce runoff of pollutants.

Development Covered Activities may adversely alter watershed hydrology and degrade water quality, which, in turn, could diminish or eliminate the conservation benefits provided by the SSHCP Preserve System. Condition 1 is designed to conserve and/or rehabilitate on-site natural creeks and streams. This condition will require the provision of BMPs and low-impact development (LID) drainage control measures to ensure that runoff from developed lands will closely mimic the pre-development hydrograph and retain most pre-development hydrologic functions. Condition 1 will accomplish the hydrograph and hydrologic objectives through application of the listed AMMs to all UDA Covered Activities that occur at the parcel, subdivision, or master plan scale.

LID-1 (Stormwater Quality): When the size of a Covered Activity project exceeds the thresholds established by the State Water Resources Control Board (SWRCB) (see the most recent Stormwater Quality Design Manual for the Sacramento and South Placer Regions, or future SWRCB-approved design manuals applicable to the Plan Area), incorporate stormwater management into site design to satisfy the requirements outlined in the most recent Stormwater Quality Design Manual for the Sacramento and South Placer Regions. Stormwater management may include groundwater recharge (LID-2) and natural site features (LID-3).

LID-2 (Groundwater Recharge): When siting SSHCP Preserves containing Riparian, Open Water, or Freshwater Marsh SSHCP land cover types, the Implementing Entity will prioritize locations that are suitable for groundwater recharge.

LID-3 (Natural Site Features): Incorporate preservation of a site's natural aquatic features (such as creeks and streams) into project design to retain natural hydrologic patterns and to retain habitat that might be used by Covered Species.

Condition 2. Avoid and Minimize Urban Development Direct and Indirect Impacts to Existing Preserves and SSHCP Preserves

Development Covered Activities adjacent to Preserves may adversely impact species that use the Preserve, and erode or eliminate the conservation benefits provided by the Preserve. Condition 2 seeks to avoid or minimize the following Covered Activity environmental stressors that may result in direct and indirect impacts to the SSHCP Preserve System:

- Alterations to landscape hydrology from new impervious surfaces may adversely affect natural communities in the lower watershed, the ecology of a Preserve, and/or downstream aquatic resources.
- Water runoff from development or from roadways directed into Preserves may introduce harmful substances into Preserves. Unseasonal and/or additional water entering a Preserve may eliminate vernal pools and other seasonal wetlands native to the region by converting them to low-functioning perennial wetlands.
- Development adjacent to Preserves may partially to fully remove the soil's "perched aquifer" (see Chapter 3) and reduce or eliminate the micro-watersheds that support the hydrology of vernal pools within the Preserve boundary. These changes may adversely affect the existing hydrologic regime of vernal pools by changing the timing, depth, and/or duration of vernal pool saturation and/or ponding, causing long-term changes to a suite of vernal pool functions. For example, changes to water chemistry could adversely affect species habitat. Although the vernal pools remain, the environmental conditions of the pools may no longer provide habitat for vernal pool Covered Species, or provide the benefit of other wetland functions (e.g., stormwater attenuation) compared to pre-project conditions.
- Introduction or proliferation of non-native or invasive plant and wildlife species may displace native species.
- Landscaping in the interface of a development and a Vernal Pool–Grassland Preserve often includes native or non-native trees and other plant species that are not found in California grasslands and, therefore, cannot survive on the Vernal Pool–Grassland Preserve border without intensive irrigation and cultivation. In addition to adverse effects from irrigation and landscape maintenance, adult trees may become landscape barriers that inhibit species movement and may act to isolate individual Preserves from the larger SSHCP Preserve System.
- Recreational use of Preserves near developed areas may compact soils, eliminate vegetation, impair hydrologic functions, introduce weeds or invasive plant species, and disturb plants and wildlife.

- Introduction of light, noise, or vibrations may disrupt normal nocturnal and diurnal cycles of native species.

AMMs associated with Condition 2 must be applied to all UDA Covered Activities that border an existing Preserve or planned SSHCP Preserve.

EDGE-1 (Compatible Land Uses): To the maximum extent practicable, development project Covered Activities will locate compatible land uses (e.g., designated open space such as parks and ball fields, detention basins, and other land uses with less-intensive human activity) in areas immediately adjacent to existing or planned Preserve boundaries. The compatible land use will provide additional buffering of Preserves from potential indirect effects of adjacent urban development. The soil surfaces in a compatible land use area may be re-contoured provided that the soil restrictive layer remains undamaged and most of the soil profile above the restrictive layer remains intact. The Land Use Authority will determine when it is not practicable to locate a compatible land use adjacent to existing or planned Preserve boundaries.

EDGE-2 (Single-Loaded Streets): To the maximum extent practicable, the design of Urban Development Covered Activities will locate single-loaded streets adjacent to existing or planned Preserve. The Land Use Authority will determine when single-loaded streets are not practicable.

EDGE-3 (Preserve Setbacks): Urban Development Covered Activities constructed adjacent to existing or planned Preserves must establish a minimum 50-foot-wide setback outward from the boundary of any existing Preserve or planned SSHCP Preserve. This minimum 50-foot-wide setback will function as a transition between Urban Development and the Preserve, and must be managed to maintain the natural community of vegetation present in the adjacent Preserve. As much of the setback as possible should remain in the same natural habitat as the Preserve.

However, as discussed in Section 5.2.5, Covered Activities in Preserve Setbacks in the UDA, where an existing or planned Preserve is adjacent to an existing roadway (e.g., collectors, arterials, thoroughfares), the 50-foot Preserve Setback will not be required, and any bicycle or pedestrian trail will be established in the road right-of-way. In addition, where a planned roadway crosses an existing or planned Preserve, no Preserve Setback will be required, and any bicycle or pedestrian trail will be established in the road right-of-way.

EDGE-3a (Setback Recreational Trails): Trails are best suited outside of the setback; however, certain types of recreational trails or facilities (e.g., benches, trash receptacles, shade structures, fencing) that can be constructed with minimum ground disturbance and in compliance with EDGE-7 may be allowed within a Preserve Setback, as specified in Section 5.2.5, Covered Activities in Preserve Setbacks in the UDA. Preserve Setback design must locate trails on the side nearest development, away from the Preserve boundary. Trails may be permeable or semi-permeable hiking trails or paved community trials. The maximum trail width will be 16 feet total, including 2-foot-wide shoulders. Post and cable fencing, split rail, or other open fencing will be installed adjacent to recreation trails to keep pedestrians on the trail.

EDGE-3b (Setback Firebreaks): If approved by the local authorities, the Preserve Setback trail may also be used as a firebreak. In instances where a trail cannot act as a firebreak, the firebreak will be located between the trail and the Preserve boundary (see Section 5.2.7). Firebreaks allowed inside the setbacks must be created by methods that will not disturb the soil's restrictive layer, such as mowing, minor scraping of surface vegetation, or shallow tilling, to comply with EDGE-7. Firebreak width within Preserve Setbacks is the minimum width needed to comply with applicable local codes.

EDGE-3c (Setback Shade Trees and Landscaping): To prevent potential impacts from irrigation water or from accumulation of leaf litter onto the grasslands or vernal pools of a Preserve, planting of shade trees or landscaping vegetation will be limited to the area of the Preserve Setback located between the recreation trail and the adjacent urban development (i.e., away from Preserves).

- Only drought-tolerant plant species will be planted. The planting pallet used for Preserve Setback landscaping will not include invasive plant species listed in the California Invasive Plant Council's (Cal-IPC) California Invasive Plant Inventory Database or listed in the Cal-IPC California Invasive Plant Watch List (see http://www.cal-ipc.org/paf/). Any shade trees planted along Preserve Setback trails will be native species that are found in California grasslands and that can survive in the Vernal Pool–Grassland border without long-term irrigation or fertilization (e.g., valley oak, black oak, blue oak, oracle oak). In general, no more than 30% of any 1,000-foot-long segment of a Preserve Setback trail will have canopy cover from tree plantings (to be consistent with maximum tree densities naturally found within native California grasslands and savanna).

- Drip irrigation will be allowed for a maximum of 5 years to establish shade trees or landscape vegetation between the recreation trail and adjacent urban development. The Implementing Entity has the discretion to allow irrigation to continue past 5 years if extenuating circumstances necessitate it (e.g., during a drought) and the continuance of irrigation will not affect the Preserve. Any irrigation systems located within Preserve Setbacks will be inspected quarterly to determine if such systems are affecting soils or vegetation not part of the intended plantings. Irrigation system repairs will be completed immediately if it is determined that the irrigation system is affecting vegetation or soil moisture not part of the intended tree planting.
- If, during annual monitoring of the adjacent Preserve (see Chapter 8), adverse indirect effects (e.g., leaf litter accumulation, irrigation runoff, plant encroachment) of the Preserve Setback's planted vegetation are detected, then the SSHCP Implementing Entity, the Preserve Manager, and the entity responsible for the Preserve Setback will identify appropriate adaptive management of the Preserve Setback tree or landscape plantings in accordance with the Preserve Setback Easement (see Section 5.2.5 and Chapter 9).

EDGE-4 (Locate Stormwater Control Outside Preserves): Roads, sidewalks, and other impermeable surfaces of Urban Development Covered Activities adjacent to existing or planned Preserves will slope away from Preserves and Preserve Setbacks or intercept drainage with swales or curbs and gutters to preclude drainage from entering Preserves and Preserve Setbacks. Stormwater flows must be directed away from Preserves and Preserve Setbacks and directed into stormwater control facilities inside the development (outside Preserves and Preserve Setbacks)[18] (see EDGE-6 for exception to EDGE-4 in certain SSHCP Linkage Preserves).

EDGE-5 (Stormwater Control in Preserve Setbacks): If trails are established in any Preserve Setback in compliance with EDGE-3, the trail must be sloped away from the Preserve, and rainwater leaving the trail surface must flow into an adjacent low-velocity bio-retention swale or cell to keep rainwater runoff and trail contaminants from entering the Preserve. Low-velocity bio-retention swales or cells are typically small linear features placed on one or both sides of a trail. As required by EDGE-3, trails and their adjacent bio-retention swales or cells must be located on the side of the Preserve Setback nearest development.

[18] Detention basins are allowed in some Linkage Preserves consistent with the requirements of EDGE-6. At the time of SSHCP preparation, seven Linkage Preserves with drainages are planned SSHCP Preserves: L1, L2, L4, L7, L8, L9, and L10 (see Section 5.2.7 and Section 7.5). Also see project-specific measures in Section 5.5.1.

EDGE-6 (Detention Basins in Linkage Preserves): Because planned SSHCP Linkage Preserves L1, L2, L4, L7, L8, L9, and L10 (see Section 7.5) surround natural creeks or streams that must receive stormwater from planned adjacent Urban Development Covered Activities, a limited number of stormwater detention basins will be allowed on those Linkage Preserves. Detention basins within Linkage Preserves (see Section 5.2.7) will be designed and constructed with fill material to build up the perimeter of the detention basin so as not to impact the soil restrictive layer (duripan or hardpan) and function of the soil perched aquifer. Detention basins within Linkage Preserves will capture stormwater flows and runoff, and will discharge water to the stream/creek or percolate collected water to the soil perched aquifer. Detention basin structures that collect stormwater entering the basin or convey stormwater leaving the basin must be designed to avoid and minimize effects to Covered Species habitat in the Linkage Preserve.

EDGE-7 (Hardpan/Duripan Protection): To protect the soil perched aquifer and the micro-watersheds supporting existing vernal pool hydrology, activities that have the potential to cut into, disrupt, or remove the soil's restrictive layer (hardpan or duripan) will not occur within Preserves or Preserve Setbacks. However, in certain circumstances, the Covered Activities defined in Section 5.2.6, Covered Activities in Stream Setbacks in the UDA, and Section 5.2.8, Covered Activities in the Laguna Creek Wildlife Corridor of the Preserve System, may result in punctures[19] or other minor disruptions of the soil hardpan or duripan if approved by the Implementing Entity and the Technical Advisory Committee according to the process described in Chapter 9 of the SSHCP. If a Covered Activity on a Preserve or Preserve Setback results in a puncture or other disruption to the soil hardpan or duripan, the puncture will be sealed using bentonite clay or other material that maintains the functionality of the soil's restrictive layer and associated perched aquifer.

EDGE-8 (Outdoor Lighting): All outdoor lighting in Urban Development Covered Activity projects will be designed to minimize light pollution into existing and planned Preserves, except where a Land Use Authority Permittee determines lighting is necessary for public safety or security. Minimization measures may include light fixture placement (e.g., as low to the ground as possible), lamp designs (e.g., shielding, low glare, or no lighting), directing light away from Preserves, or other means to avoid or minimize light pollution. The Third-Party Project Proponent will use the best information available at the time of project design to minimize effects of light pollution on target SSHCP Covered Species (e.g., western spadefoot (*Spea*

[19] Punctures may include small holes that penetrate the soil hardpan or duripan such as might occur when digging or drilling holes for the installation of fence posts, sign posts, or trees.

hammondii), Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), and Ricksecker's water scavenger beetle (*Hydrochara rickseckeri*)).

EDGE-9 (Livestock Access to Preserves): Urban Development Covered Activity projects that include on-site Preserves will include in their design an adequate number of access points and facilities for delivery and pick up of grazing animals (livestock), such that these activities will not significantly alter the Preserve's habitat and are consistent with the protection of livestock and protection of adjacent public property, and include adequate public safety measures.

EDGE-10 (Prevent Invasive Species Spread): Completed Covered Activities (including roads) will be maintained in a manner that avoids the spread of invasive species into Preserve and Open Space areas. Such maintenance measures will include the following:

- To prevent the transport of non-native invasive species onto Preserves, before bringing any equipment onto an SSHCP Preserve or Preserve Setback, equipment must be cleaned of mud, dirt, and plant material. Cleaning will occur in the infested area or another appropriate location as approved by a Plan Permittee.
- Mowing rotation will start in un-infested areas and move to infested areas.
- Invasive plant prevention techniques will be incorporated into maintenance plans.
- The SSHCP Implementing Entity will survey road shoulders, ditches, and rights-of-way that border SSHCP Preserves for invasive weeds or other exotic plant species. Where roadside weed infestations have reached a critical control point, the Implementing Entity or Land Use Authority Permittee will apply the appropriate manual, mechanical, or chemical treatment.

Condition 3. Implement Construction Best Management Practices

AMMs associated with Condition 3 must be applied to all UDA Covered Activities.

BMP-1 (Construction Fencing): Orange construction fencing will be installed to ensure that ground disturbance does not extend beyond the allowed construction footprint (i.e., the limit of project construction plus equipment staging areas and access roads). Plan Permittees and Third-Party Project Proponents implementing ground-disturbing Covered Activities will mark the outer boundary of any Preserve Setback or Stream Setback adjacent to or within the project site with orange construction fencing prior to ground disturbance. This fencing will remain in place until project completion, as identified by the Plan Permittee.

BMP-2 (Erosion Control): Plan Permittees and Third-Party Project Proponents implementing ground-disturbing Covered Activities will install temporary control measures for sediment, stormwater, and pollutant runoff as required by the Plan Permittee to protect water quality and species habitat. Silt fencing or other appropriate sediment control device(s) will be installed downslope of any Covered Activity that disturbs soils.

Fiber rolls and seed mixtures used for erosion control will be certified as free of viable noxious weed seed. As discussed in Section 5.4.2, Covered Species Take Avoidance and Minimization Measures, erosion controls installed in or adjacent to Plan Area modeled habitat for giant gartersnake (*Thamnophis gigas*), western pond turtle (*Actinemys marmorata*), California tiger salamander (*California tiger salamander*), or western spadefoot (see Chapter 3) must be of appropriate design and materials that will not entrap the species (e.g., not contain mesh netting). Regular monitoring and maintenance of the project's erosion control measures will be conducted until project completion to ensure effective operation of erosion control measures.

BMP-3 (Equipment Storage and Fueling): Plan Permittees and Third-Party Project Proponents implementing ground-disturbing Covered Activities will ensure that equipment storage and staging will occur in the development footprint only (not sited in any existing on-site Preserve, planned on-site Preserve, Preserve Setback, Stream Setback, or aquatic land cover type). Fuel storage and equipment fueling will occur away from waterways, stream channels, stream banks, and other environmentally sensitive areas within the development footprint.

However, certain equipment storage and fueling activities can be allowed on Preserves within habitat re-establishment/establishment sites (refer to Section 5.2.7) if no location outside of the site is available. If a Covered Activity results in a spill of fuel, hydraulic fluid, lubricants, or other petroleum products, the spill will be absorbed and waste disposed of in a manner to prevent pollutants from entering a waterway, Preserve, Preserve Setback, or Stream Setback.

BMP-4 (Erodible Materials): Plan Permittees and Third-Party Project Proponents implementing Covered Activities must not deposit erodible materials into waterways. Vegetation clippings, brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks. Erodible material must be disposed of such that it cannot enter a waterway, Preserve, Preserve Setback, Stream Setback, or aquatic land cover type. If water and sludge must be pumped from a subdrain or other structure, the material will be conveyed to a temporary settling basin to prevent sediment from entering a waterway.

BMP-5 (Dust Control): Plan Permittees and Third-Party Project Proponents implementing ground-disturbing Covered Activities will water active construction sites regularly, if warranted, to avoid or minimize impacts from construction dust on adjacent vegetation and wildlife habitats. No surface water will be used from aquatic land covers; water will be obtained from a municipal source or existing groundwater well.

BMP-6 (Construction Lighting): Plan Permittees and Third-Party Project Proponents implementing ground-disturbing Covered Activities will direct all temporary construction lighting (e.g., lighting used for security or nighttime equipment maintenance) away from adjacent natural habitats, and particularly Riparian and Wetland habitats and wildlife movement areas.

BMP-7 (Biological Monitor): If a Covered Activity includes ground disturbance within Covered Species modeled habitat, an approved biologist will be on site during the period of ground disturbance, and may need to be on site during other construction activities depending on the Covered Species affected. After ground-disturbing project activities are complete, the approved biologist will train an individual to act as the on-site construction monitor for the remainder of construction, with the concurrence of the Permitting Agencies. The on-site monitor will attend the training described in BMP-8. The approved biologist and the on-site monitor will have oversight over implementation of Avoidance and Minimization Measures, and will have the authority to stop activities if any of the requirements associated with those measures are not met. If the monitor requests that work be stopped, the Wildlife Agencies will be notified within one working day by email. The approved biologist and/or on-site monitor will record all observations of listed species on California Natural Diversity Database field sheets and submit them to the California Department of Fish and Wildlife. The approved biologist or on-site monitor will be the contact source for any employee or contractor who might inadvertently kill or injure a Covered Species or who finds a dead, injured or entrapped individual. The approved biologist and on-site monitor's names and telephone numbers will be provided to the Wildlife Agencies prior to the initiation of ground-disturbing activities. Refer to species-specific measures for details on requirements for biological monitors.

BMP-8 (Training of Construction Staff): A mandatory Worker Environmental Awareness Program will be conducted by an approved biologist for all construction workers, including contractors, prior to the commencement of construction activities. The training will include how to identify Covered Species that might enter the construction site, relevant life history information and habitats, SSHCP and

statutory requirements and the consequences of non-compliance, the boundaries of the construction area and permitted disturbance zones, litter control training (SPECIES-2), and appropriate protocols if a Covered Species is encountered. Supporting materials containing training information will be prepared and distributed by the approved biologist. When necessary, training and supporting materials will also be provided in Spanish. Upon completion of training, construction personnel will sign a form stating that they attended the training and understand all of the Avoidance and Minimization Measures. Written documentation of the training must be submitted to the Implementing Entity within 30 days of completion of the training, and the Implementing Entity will provide this information to the Wildlife Agencies.

BMP-9 (Soil Compaction): After construction is complete, all temporarily disturbed areas will be restored similar to pre-project conditions, including impacts relating to soil compaction, water infiltration capacity, and soil hydrologic characteristics.

BMP-10 (Revegetation): Plan Permittees and Third-Party Project Proponents implementing ground-disturbing Covered Activities will revegetate any cut-and-fill slopes with native or existing non-invasive, non-native plants (e.g., non-native grasses) suitable for the altered soil conditions and in compliance with EDGE-2 and EDGE-8, if applicable.

BMP-11 (Speed Limit): Project-related vehicles will observe the posted speed limits on paved roads and a 10-mile-per-hour speed limit on unpaved roads and during travel in project areas. Construction crews will be given weekly tailgate instruction to travel only on designated and marked existing, cross-country, and project-only roads.

Condition 4. Avoid and Minimize Impacts that May Result from Implementation of Covered Transportation Projects

Urban Development transportation project and Rural Transportation Project Covered Activities, including bridge projects, can affect Covered Species. AMMs included for Condition 4 seek to avoid or minimize direct and indirect impacts that may result from construction of roadways or roadway improvements. Condition 4 applies to all transportation-related Covered Activities (see Sections 5.2.1 and 5.2.3).

Plan Permittees and Third-Party Project Proponents implementing Urban Development transportation or Rural Transportation Project Covered Activities must comply with the roadway siting, design, and construction AMMs described below.

ROAD-1 (Road Project Location): Road projects will be located in the least environmentally sensitive area to avoid, to the maximum extent practicable, impacts on Covered Species, Covered Species habitat, and waters of the United States. Road project alignments will follow existing roads, road easements, and rights-of-way, or be sited in disturbed areas to minimize habitat loss and additional habitat fragmentation.

ROAD-2 (Wildlife Crossing Structures): Road projects that are Urban Development Covered Activities (see Section 5.2.1) (including the Capital Southeast Connector, see Section 5.2.1.1) or are Rural Transportation Covered Activities (see Section 5.2.3) will include an adequate number of wildlife crossing structures, as depicted in Figure 5-10. An adequate number of wildlife crossing structures within the Urban Development Area (UDA) and outside the UDA will provide for continued dispersal and movement of native wildlife throughout the SSHCP Plan Area, as required by the SSHCP Biological Goals and Objectives (see Chapter 7).

The Plan defines "wildlife crossing structure" as a physical structure specifically designed or retrofitted to facilitate undercrossing for target wildlife species. The Plan further classifies wildlife crossings as hydrologic crossings and dry crossings. Hydrologic crossings are built where there is an existing stream, creek, or intermittent drainage to maintain existing hydrologic connectivity within the Plan Area. As described below, hydrologic crossings require specialized features to be built into the crossing structure, such as elevated platforms to allow wildlife to pass under a crossing structure when it is inundated with water. Dry wildlife crossings are built where there is no hydrologic feature but where a crossing is needed to provide for overland connectivity. SSHCP wildlife crossing structures may include structures such as bridges, arches, or box and pipe culverts.

Plan Permittees expect that future wildlife movement and dispersal within the UDA will occur almost entirely within the boundaries of the future interconnected SSHCP Preserve System (see Section 7.5). Therefore, wildlife crossings are needed wherever a roadway crosses (bisects) the conceptual SSHCP Preserve System (see Figure 5-10). Wildlife crossing structures inside the UDA will be sized to accommodate movement of a highly mobile native indicator species (i.e., coyote (*Canis latrans*)). By designing UDA wildlife crossing structures to meet the movement and dispersal requirements of coyote, the Plan Permittees anticipate that the crossing structure will also accommodate most native wildlife species that currently occupy the UDA (see Chapter 3).

The Plan Permittees expect that most of the Plan Area outside of the UDA will remain as Open Space over the 50-year Permit Term (see Chapter 4). Therefore,

the Plan Permittees expect that the Rural Transportation Project Covered Activities proposed outside the UDA will have a relatively small effect on the movement and dispersal of larger or more mobile native wildlife species, including coyote. Consequently, the Plan Permittees anticipate that the design of Rural Transportation Project Covered Activities outside the UDA will need to include wildlife crossing structures primarily where the Rural Transportation Project Covered Activities occur within California tiger salamander modeled habitat (see CTS-3 and also Chapter 3, Figure 3-16).

The design and location of wildlife crossing structures both inside the UDA and outside the UDA will be determined by collaboration between the Third-Party Project Proponent, the Land Use Authority, and the Implementing Entity. Crossing design will use the best available scientific and commercial information for the target species. The design of crossing structures will be based on demonstrated effectiveness of design for the target species when such information is available, or will be designed with a high level of certainty of success based on studies of similar taxa in similar environmental settings. The proposed wildlife crossing structures designs will be reviewed and approved by the Implementing Entity prior to final design.

The Implementing Entity will develop a Wildlife Crossing Maintenance Manual to be provided to the entity responsible for maintaining the wildlife crossing. The Wildlife Crossing Maintenance Manual will identify vegetation management, clearing of obstructions, and other techniques to maintain the desired movement and hydrologic connectivity, and to avoid effects to adjacent Preserves.

All SSHCP wildlife crossing structures in the UDA will include the following design elements:

- Open-bottom bridges or arches where the roadway crosses a river or stream. Where an open-bottom bridge or arch is used, the span of the crossing will be at least 1.2 times the bankfull width of the stream and span the banks to allow for dry wildlife passage along each side of the stream and to avoid or minimize piers or footings within the stream. (Bankfull width refers to the width of a stream channel at the point where over-bank flow begins during a flood event.)
- Any wildlife crossing structure that also maintains hydrologic connectivity will be designed to maintain pre-construction water capacity, depth, and velocity. The crossing structure will not restrict or impede normal flows or flood flows, unless a primary purpose of the structure is to manage such

flow(s). Wildlife crossing structures must be designed to provide a dry passage (e.g., a platform ledge) higher than flows for a 10-year storm event to allow wildlife to pass through an inundated crossing structure.

- Wildlife crossing structures in the UDA will be designed and sized to accommodate movement of at least medium-sized mammals (e.g., coyote). The opening must be at least 3 feet high and the crossing structure must have a minimum openness ratio of at least 0.4.
- Vegetation leading up to the entrance of a crossing structure and the substrate leading into and within the crossing structure will be natural and appropriate to provide for continuity of habitat, attract the target animal species for which the crossing is designed, and facilitate use of the crossing structure.
- A wildlife crossing under six-lane roads or larger will be designed to provide ambient light and temperature in the longer crossing structures (e.g., either by providing a larger opening or a grate at the top of the structure to improve the attractiveness of the crossing to certain Covered Species and wildlife that may hesitate to cross through dark, confined structures or one with a temperature gradient (Jackson and Griffin 2000)). If a road is less than six lanes in width, these designs will be optional.
- Lighting will not be placed at or near the entrance of a wildlife crossing structure to maintain natural ambient light conditions at night and to increase chances of wildlife use. However, a Land Use Authority Permittees may allow lighting if necessary for human health or safety.

Outside the UDA, wildlife crossing structures may be required for California tiger salamander (refer to CTS-1), and could also be required for other native species.

ROAD-3 (Roadside Pesticide Use[20]): If pesticide use is necessary along roadsides, the appropriate SSHCP Permittee will ensure that the pesticide application strictly complies with the pesticide label and all other applicable federal, state, and local authorities pertaining to the use, safety, storage, disposal, and reporting of the pesticide. Where roadside weed infestations have reached a critical control point, the Implementing Entity or a Land Use Authority Permittee will apply the appropriate manual, mechanical, or chemical treatment. In addition, the Implementing Entity or appropriate Land Use Authority Permittee will post signs along road shoulders adjacent to sensitive areas that are within the SSHCP

[20] Use of pesticides (including rodenticides and herbicides) is not an SSHCP Covered Activity. However, pesticide use specified in Section 5.3 is an allowed land management tool, provided the pesticide application is otherwise legal and conforms to all conditions in Section 5.4.

Preserve System (e.g., California tiger salamander breeding ponds, endemic plant populations, vertebrates that rely on insects for part of their diet). The signs will identify pesticide use restrictions or other roadside maintenance restrictions.

Condition 5. Avoid and Minimize Impacts that Result from Public Use of Low-Impact Nature Trails in Preserves

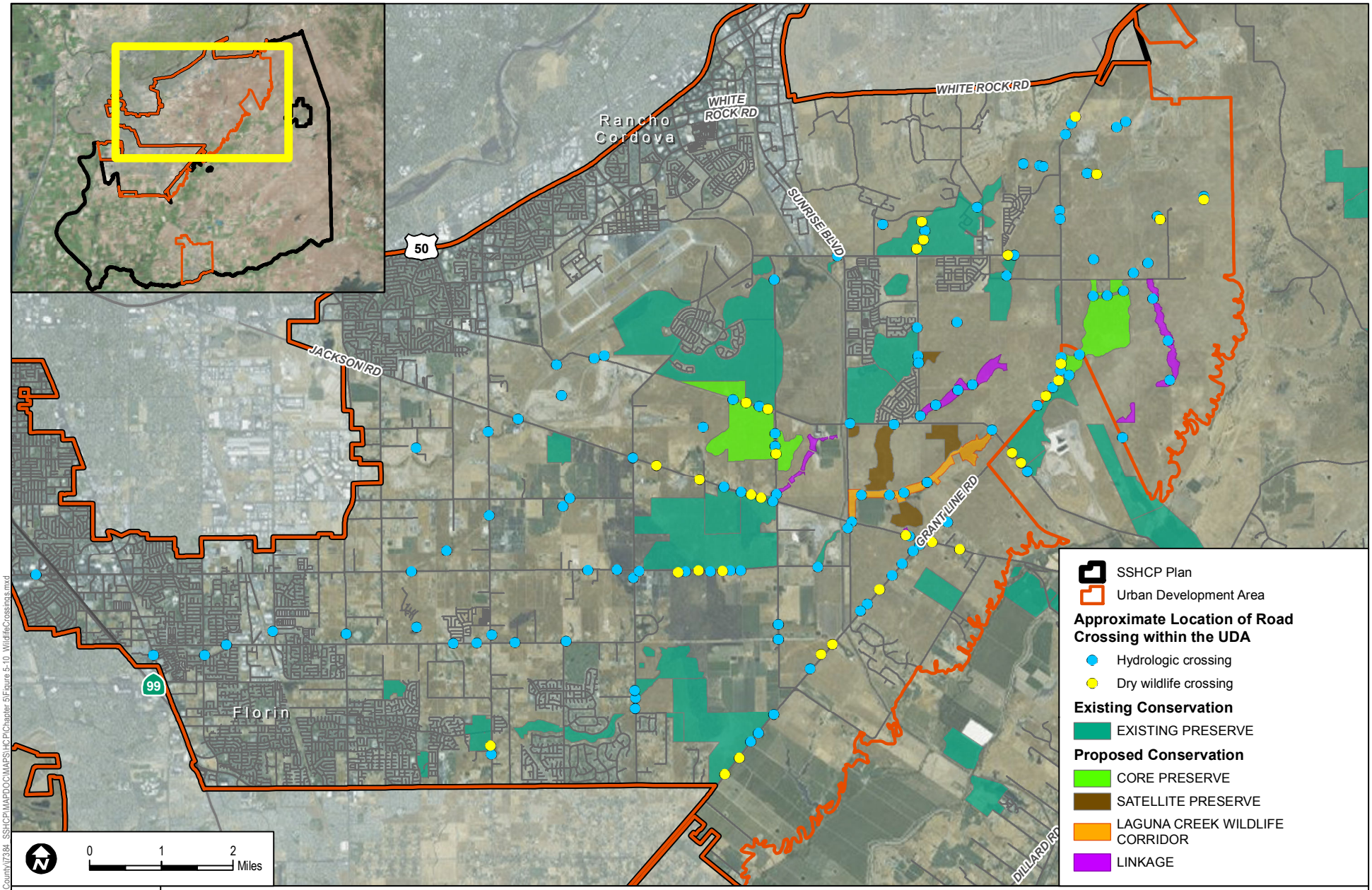
Preserves within the UDA are likely to be surrounded by urban development. As discussed in Section 5.2.7, allowing limited use of SSHCP Preserves will help to foster a sense of community ownership and will provide an opportunity to educate the community about the natural resources to be protected within the SSHCP Preserve System.

Low-impact nature trails will be designed following the AMMs outlined below.

NATURE TRAIL-1 (Nature Trail Plan): A nature trail plan must be prepared for each Preserve where a trail is allowed by the Preserve Management Plan. Nature trails will be unpaved trails that vary in width depending on terrain and existing constraints, but will never exceed 4 feet in width. Where a trail crosses a swale, wooden walkways elevated to a height no greater than 2 feet will be installed. Trail improvements may include mowing vegetation to create or maintain a trail, minor grading to remove trip hazards, and signs providing directional and educational information. Public access to land acquired for preservation will be prohibited until a trail plan can be prepared by the Implementing Entity and approved by the Permitting Agencies. A trail plan will include the following:

- Maps identifying areas that contain sensitive habitats or species occurrences.
- Maps that show the location and footprint of proposed trails.
- Methods used to control public access.
- Trail and use monitoring methods, schedules, and responsibilities.
- Trail operation and maintenance guidelines and responsibilities.
- Clear triggers for use restrictions or closure based on sensitive biological indicators (e.g., seasonal closures of some trails on the basis of activity periods of Covered Species or sensitive species).

NATURE TRAIL-2 (Nature Trail Protection of Duripan): Nature trails will be sited and constructed so as not to interfere with existing soil duripan and the perched aquifer that support the existing hydrologic regime of the Vernal Pool–Grassland, and will not interfere with existing pool hydrology. Trails within Preserves will not be paved.



Path: Z:\Projects\Sacramento_County\v7384_SSHCP\MAPDOC\MAPS\HCP\Chapter 5\Figure 5-10_WildlifeCrossings.mxd

SOURCE: ESRI, County of Sacramento 2014, USFWS 2015

FIGURE 5-10

Wildlife Crossings

SOUTH SACRAMENTO HABITAT CONSERVATION PLAN

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NATURE TRAIL-3 (Nature Trail Location): Nature trails will be located away from sensitive natural resources (e.g., vernal pools, riparian habitat, woodland habitat, Covered Species occurrences, raptor nesting sites, tricolored blackbird (*Agelaius tricolor*) colony sites). The Wildlife Agencies will determine the distance necessary to avoid impacts to sensitive natural resources.

NATURE TRAIL-4 (Biological Studies Prior to Nature Trail Design): Biological studies will be conducted within the area being considered for nature trail construction prior to project design. The studies will include land cover type mapping and focused species surveys and/or wetland delineations. The biological studies will include assessments of potential effects of trail construction on Preserve System resources, and recommendations for avoidance and minimization that may be incorporated into project siting, design, construction, and operation.

NATURE TRAIL-5 (Monitoring of Nature Trail Impacts): Impacts that could result from use of a nature trail within a Preserve will be monitored according to the Preserve Management Plan (Chapter 8) to ensure that uses do not conflict with the individual Preserve Management Plan. If use of a trail is found to conflict with the individual Preserve Management Plan, use of that trail will be discontinued until adjustments in the use can be made to reduce or eliminate conflicts. The Implementing Entity will make decisions about discontinuing or modifying use of a trail in consultation with the Preserve Manager or other applicable Preserve management agency or organization.

Condition 6. Avoid and Minimize Impacts When Re-Establishing or Establishing Wetlands

As discussed in Chapter 7, the Plan Permittees anticipate that 389 acres of Vernal Pool habitat will be re-established or established[21] within the Plan Area as part of the SSHCP Conservation Strategy. Although re-establishment or establishment of vernal pools is a Measurable Objective under this Plan, if not done correctly, the action could have an adverse impact on existing vernal pools.

RE-ESTABLISHMENT/ESTABLISHMENT-1 (Vernal Pool): Re-establish or establish Vernal Pool Wetland according to the following guidelines:

- Re-establishment will always take priority over establishment of vernal pools. Establishment will be permitted only after it has been determined that sites with the potential to re-establish vernal pools no longer exist in the Plan Area or cannot be acquired through a willing seller/buyer agreement.

[21] In the context of this Plan, "establish" is synonymous with "create."

- When possible, re-established or established sites will be located adjacent to an existing Preserve(s) to maximize connectivity and Preserve area.
- Re-establishment or establishment will not result in direct or indirect adverse impacts to the hydrologic regime of existing vernal pools. Vernal pool re-establishment or establishment actions will not remove more than 10% of any existing vernal pool watershed, as defined by the SSHCP LIDAR analysis (see Section 3.3 and Conservation Action VPI1.2 in Table 7.1).
- Vernal pool re-establishment will attempt to restore the historical density and range of vernal pool sizes to the maximum extent feasible using historical aerial photography of the site, if available. Where aerial photography of the site's historical conditions is not available, vernal pool re-establishment will include a range of pool sizes (area and depth) to accommodate the different habitat needs and life history characteristics of the vernal pool invertebrate Covered Species.
- Established vernal pools must be located on sites with vernal pool soils, defined as any Plan Area soil type where vernal pools currently exist.
- Established vernal pool sites will include a range of pool sizes to accommodate the different habitat needs and life history characteristics of the three vernal pool invertebrate Covered Species.
- The total density of vernal pools will not exceed 10% of the suitable soil areas in any vernal pool re-establishment and/or establishment site, unless it can be shown that the suitable areas of that site historically supported greater densities.
- Re-establishment or establishment may include inoculation when it is likely that no seed or cyst bank of vernal pool species remains at a site. Vernal Pool inocula will come from nearby vernal pools that are on the same geologic formation and soil type.

RE-ESTABLISHMENT/ESTABLISHMENT-2 (Vernal Pool Inocula Bank): Vernal pool re-establishment or establishment may include "soil inoculation" when it is likely that no seed or cyst bank of vernal pool species remains at a re-establishment or establishment site.

- During conversion of Urban Development Area vernal pools to a developed land cover type, project proponents will excavate and retain soil from vernal pools following protocols developed by the SSHCP Technical Advisory Committee (Chapter 9).

- Inocula applied in re-established or established vernal pools must be harvested from a vernal pool that is on the same geologic formation and soil type shown on the County General Soil Map as the re-establishment/establishment site. Geologic formations and soil types will follow U.S. Department of Agriculture Soil Conservation Service's 1993 Soil Survey of Sacramento County, California. Proposed off-site inocula sources must be approved by the Wildlife Agencies.

RE-ESTABLISHMENT/ESTABLISHMENT-3 (Re-Establishment/Establishment of Freshwater Marsh or Open Water Near Airports): During review of proposed re-establishment/establishment projects for freshwater marsh or open water on SSHCP Preserves, the Implementing Entity shall consider the potential for the location of the re-establishment/establishment projects to increase the risk of wildlife strikes or generation of ground fog at airports. If a re-establishment/ establishment project would result in (1) a net increase in open water or freshwater marsh acreage over baseline conditions[22] within 5 miles of Mather Field, Sacramento Executive Airport, or Franklin Field; or (2) replacement of open water/freshwater marsh habitat that is located 2 or more miles from Mather Field or Sacramento Executive Airport with open water/freshwater marsh habitat that is located less than 2 miles from those airports, a qualified biologist shall prepare a concise letter report. The letter report shall summarize the biologist's findings regarding (1) the species likely to use the re-established/established habitat, (2) a rough order of magnitude estimate on the peak number of birds that might use the re-established/established habitat, and (3) potential movement patterns for birds using the re-established/established habitat and whether they might cross through the airport safety zones (e.g., to reach foraging habitat or another wildlife attractant). The letter report will also provide recommendations to the Implementing Entity on how they could reduce any of the identified wildlife hazards if there are any feasible means to do so that would not conflict with the biological goals and measurable objectives of the Conservation Plan.

Condition 7. Avoid and Minimize Impacts to Streams and Creeks

AMMs associated with Condition 7 must be applied to all Covered Activities where a stream or creek is located within a project footprint.

[22] For purposes of establishing baseline conditions, Freshwater Marsh and Open Water acreages will be calculated using that version of the SSHCP Land Cover Type Map in existence as of the date that the SSHCP permit was issued to the Plan Permittees by the USFWS.

STREAM-1 (Laguna Creek Wildlife Corridor): A 150-foot setback measured from the top of the bank on both sides of the stream will be applied to Laguna Creek within the Urban Development Area (minimum 300-foot corridor width). If trails are located within the Laguna Creek Wildlife Corridor, the nearest edge of the trail will be located at least 80 feet from the top of the bank.

STREAM-2 (UDA Stream Setbacks): A 100-foot setback measured from the top of the bank on both sides of the stream channel will be applied to all streams listed in Table 5-1 (see also Figure 2-4). If a stream reach supports woody riparian vegetation, the setback will be equal to the riparian edge plus 25 feet or will be the setback defined above, whichever is greater. If trails are located within the Stream Setback, the nearest edge of the trail will be located at least 50 feet from the top of the bank.

Table 5-1
Stream Setback Minimum Requirements in the Urban Development Area

Stream	Minimum Setback (from the Top of Bank Measured in Aerial Perspective) on Both Sides of the Stream
Elder Creek	100 feet
Frye Creek	100 feet or as depicted as part of the NewBridge development project hardline Preserve (see Appendix K)
Gerber Creek	100 feet
Morrison Creek	100 feet
Central Paseo	100 feet or as depicted as part of the Cordova Hills development project hardline Preserve (Appendix K)
Sun Creek	100 feet or as depicted as part of the Sun Creek development project hardline Preserve (see Appendix K)

STREAM-3 (Minor Tributaries to UDA Streams): A 25-foot setback measured from the top of the bank on both sides of the stream channel will be applied to all avoided first and second order tributaries to the streams listed in Table 5-1 and Laguna Creek. Refer to Objective W6 in Chapter 7 (Table 7-1) regarding avoided first and second order tributaries. Trails are not permitted within headwater ephemeral Stream Setbacks.

STREAM-4 (Minimize Effects from Temporary Channel Re-Routing): When an Urban Development Covered Activity temporarily re-routes a stream, creek, or drainage, the re-routing will be completed in a manner that minimizes impacts to beneficial uses and habitat. The following measures will be employed to minimize disturbances that will adversely impact water quality:

- No equipment will be operated in areas of flowing or standing water.
- Construction materials and heavy equipment must be stored outside of the active flow of any waters.

- When work within waters is necessary, the entire stream flow will be diverted around the work area.
- In the event of rain, the disturbed in-water work area will be temporarily stabilized before water body flow exceeds the capacity of the diversion structure. The disturbed water body will be stabilized so that the disturbed areas will not come in contact with the flow.
- Once construction is complete, all project-introduced material (e.g., pipes, gravel, cofferdam, sandbags) must be removed, leaving the water as it was before construction. Excess materials will be disposed of at an appropriate disposal site.
- All work areas will be effectively isolated from stream flows using suitable control measures before commencement of any in-water work. The diverted stream flow will not be contaminated by construction activities. Structures for isolating the in-water work area and/or diverting the stream flow (e.g., cofferdam, geo-textile silt curtain) will not be removed until all disturbed areas are cleaned and stabilized.
- Any flow diversion used during construction will be designed in a manner to prevent pollution and minimize siltation, and will provide flows to downstream reaches. Flows will be maintained to support existing aquatic life, riparian wetlands, and habitat that may be located upstream and downstream from any temporary diversion.
- All surface waters, including ponded waters, will be diverted away from areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity that may result in a discharge to waters.
- All temporary dewatering methods will be designed to have the minimum necessary impacts to waters to isolate the immediate work area. All dewatering methods will be installed such that natural flow is maintained upstream and downstream of the diversion area. Any temporary dams and diversions will be installed such that the diversion does not cause sedimentation, siltation, or erosion upstream or downstream of the diversion area. All dewatering methods will be removed immediately upon completion of diversion activities.
- A method of containment must be used below any bridge, boardwalk, and/or temporary crossing to prevent debris from falling into the waters through the entire duration of a project.

- If temporary surface water diversions and/or dewatering are anticipated, the Third-Party Project Proponent will develop and maintain on site a surface water diversion and/or dewatering plan. The plan(s) must be developed prior to initiation of any water diversions and will include the proposed method and duration of diversion activities. The plan(s) must be made available to Central Valley Water Board staff upon request.
- When work in a flowing stream is unavoidable and any dam or other artificial obstruction is being constructed, maintained, or placed in operation, sufficient water will be allowed at all times to pass downstream to maintain beneficial uses of waters below the dam. Construction, dewatering, and removal of temporary cofferdams will not violate the turbidity, settle-able matter, pH, temperature, or dissolved oxygen requirements of any Water Quality Control Plan.
- Any temporary dam or other artificial obstruction will only be built from clean materials such as sandbags, gravel bags, water dams, or clean/washed gravel that will cause little or no siltation. Stream flow will be temporarily diverted using gravity flow through temporary culverts or pipes, or pumped around the work site with the use of hoses.

STREAM-5 (Design for Stream Channel Re-Routing, Widening, or Deepening): When an Urban Development Covered Activity alters a stream, creek, or drainage by re-routing, widening, or deepening a channel, the project design will include the following:

- The main channel of a re-routed channel will be free to migrate laterally over its active and terrace floodplain.
- Channel geometry (plan, profile, and cross-section) of the site will be appropriate for the watershed location and physical/hydrologic condition.
- Local, native materials will be used as fill material to the extent practicable.
- Bioengineering techniques will be used for construction and maintenance of bank stabilization. Bioengineered bank stabilization structures will use vegetation in combination with bank reshaping; biodegradeable geotextile materials; and, in some cases, a minimal amount of rock or wood to the extent practicable to dissipate erosive energy. Third-Party Project Proponents will consult a professional engineer when considering using bioengineering techniques.
- All re-routed, widened, or deepened streams are required to establish Stream Setbacks with minimum widths required under STREAM-1, STREAM-2, or STREAM-3. All re-routed, widened, or deepened streams must re-establish/

establish and maintain native Woody Riparian land cover and/or native Grassland Riparian land cover in the entire Stream Setback.

Condition 8. Avoid and Minimize Impacts to Covered Species from Utility and Utility Maintenance Covered Activities

AMMs associated with Condition 8 must be applied to all Covered Activities associated with construction and maintenance of infrastructure projects.

UTILITY-1 (Avian Collision Avoidance): Installation of new, or relocation of existing, utility poles, lines, and cell towers located within the Preserve System or within 1,000 feet of a Preserve boundary will be coordinated with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife. The applicant or relevant utility/service provider will install utility poles, lines, and cell towers in conformance with Avian Powerline Interaction Committee (APLIC) standards for collision-reducing techniques, as outlined in Reducing Avian Collisions with Power Lines: State of the Art in 2012 (APLIC 2012), or any superseding document issued by the APLIC.

UTILITY-2 (Utility Maintenance on Preserves): Utility maintenance inside SSHCP Preserves and SSHCP Preserve Setbacks containing vernal pools will occur only when vernal pools have been dry for 30 days, except in emergency situations related to human health and safety.

UTILITY-3 (Trenchless Construction Methods): Where a pipeline or conduit crosses an existing or planned Preserve or will be located between adjacent Preserves (e.g., under a roadway that has a Preserve on both sides), trenchless construction methods will be used to minimize impacts to the existing soil profile (including impacts to a hardpan or duripan) to maintain the perched aquifer in Vernal Pool Grassland land cover type.

UTILITY-4 (Siting of Entry and Exit Location): The entry and exit locations for the trenchless construction method (see Utility-3) will be sited to avoid impacts to vernal pools and Riparian Woodland, and to avoid direct take of SSHCP Covered Species.

Condition 9. Avoid and Minimize Impacts That Might Result From Removing or Breaching Levees to Establish or Re-establish Riparian Habitat

LEVEE-1 (Preparation of Hydrologic Analysis): Prior to approving a draft Preserve Management Plan that includes (1) modifying or breaching an existing levee, or (2) would place a potential impedance to high-water event flood-flows on the water side of an existing levee (including new riparian vegetation plantings or

other new Preserve facilities), a hydrologic analysis will be conducted. The Preserve activity will only be implemented if the hydrologic analysis concludes that the activity will not result in a substantial increase in flood stage elevations or flood risk on lands outside the Preserve.

Condition 10. Avoid and Minimize Impacts That Might Result From Potential Residual Contamination of Preserves and Related Exposure of People to Such Hazardous Materials

HAZARDOUS MATERIALS-1 (Preparation of Phase I Environmental Site Assessment): Prior to the acquisition of a preserve site or implementation of a stream or riparian restoration project, a Phase I Environmental Site Assessment shall be conducted in general accordance with the American Society for Testing and Materials Standard Practice E1527-05. The purpose of this Environmental Site Assessment is to identify, to the extent feasible pursuant to the American Society for Testing and Materials Standard, recognized environmental conditions in connection with the potential site. The term "recognized environmental condition" means the presence or likely presence of hazardous substances or petroleum products on the property under conditions that may indicate an existing release, a past release, or a material threat of release of these substances to the property. If the Phase 1 Environmental Site Assessment indicates the presence of a recognized environmental condition, the Implementing Entity shall consider the following options.

- Determine that the acquisition/project can proceed on the basis that the Habitat Plan goals and objectives can be met on the site even with the presence of a recognized environmental condition.
- Conduct a Phase II Environmental Site Assessment, including soil and groundwater testing, to further study the potential for contamination to limit the Implementing Entity's management activities.
- If the results of the Phase I (or Phase II) Environmental Site Assessment indicate that the Habitat Plan goals and objectives cannot be met on the site, the Implementing Entity should not acquire the site.

HAZARDOUS MATERIALS-2 (Contingency Plan): As part of each Preserve Management Plan or site restoration plan, a Contingency Plan shall be prepared to address the actions that would be taken during construction in the event that unexpected contaminated soil or groundwater is discovered. The Contingency Plan shall include health and safety considerations, handling and disposal of wastes, reporting requirements, and emergency procedures. The Contingency Plan shall include a requirement that if evidence of contaminated materials is encountered

during construction, construction would cease immediately and applicable requirements of the Comprehensive Environmental Release Compensation and Liability Act and the California Code of Regulations Title 22 regarding the disposal of waste would be implemented.

5.4.2 Covered Species Take Avoidance and Minimization Measures

The following section describes measures to avoid or minimize effects of Covered Activities on specific SSHCP Covered Species. Species-specific AMMs include species surveys, pre-construction surveys, and construction monitoring. Most species-specific AMMs require that species surveys be conducted if Covered Species modeled habitat is within the proposed Covered Activity footprint or within a specified distance of the proposed Covered Activity. Section 3.4 provides maps and descriptions of modeled habitat for each Covered Species. The AMMs described below apply to Covered Activities when Covered Species modeled habitat or a Covered Species occurrence are at a project site. The Implementing Entity and Wildlife Agencies may update specific SSHCP AMMs over the Permit Term to provide the best and most appropriate protective measures for a Covered Species.

General Covered Species Take Avoidance and Minimization Measures

The following AMMs will apply to all Covered Activities that are required to implement Covered Species take AMMs.

SPECIES-1 (Litter Removal Program): A litter control program will be instituted for the entire project site. All workers will ensure that their food scraps, paper wrappers, food containers, cans, bottles, and other trash are deposited in covered or closed trash containers. All garbage will be removed from the project site at the end of each work day, and construction personnel will not feed or otherwise attract wildlife to the area where construction activities are taking place.

SPECIES-2 (No Pets in Construction Areas): To avoid harm and harassment of native species, workers and visitors will not bring pets onto a project site.

SPECIES-3 (Take Report): If accidental injury or death of any Covered Species occurs, workers will immediately inform the approved biologist or on-site monitor and site supervisor. The approved biologist or on-site monitor will phone the appropriate contact person at the Implementing Entity. The Implementing Entity will immediately contact the Wildlife Agencies by telephone. A memorandum will be provided to the Implementing Entity and Wildlife Agencies within 1 working day of the incident. The report will provide the date and location of the incident, number of individuals taken,

the circumstances resulting in the take, and any corrective measures taken to prevent additional take.

SPECIES-4 (Post-Construction Compliance Report): A post-construction compliance report will be submitted to the SSHCP Implementing Entity within 30 calendar days of completion of construction activities or within 30 calendar days of any break in construction activity that lasts more than 30 days. The report will detail the construction start and completion dates, any information about meeting or failing to meet species take Avoidance and Minimization Measures (AMM), effectiveness of each AMM that was applied at the project site, and any known project effects to Covered Species.

Rare Plants

PLANT-1 (Rare Plant Surveys): If a Covered Activity project site contains modeled habitat for Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii)*, Bogg's Lake hedge-hyssop (*Gratiola heterosepala)*, dwarf downingia (*Downingia pusilla)*, Legenere (*Legenere limosa*), pincushion navarretia (*Navarretia myersii)*, or Sanford's arrowhead (*Sagittaria sanfordii*), the Covered Activity project site will be surveyed for the rare plant by an approved biologist and following the California Department of Fish and Wildlife (CDFW) rare plant survey protocols (CDFG 2009) or the most recent CDFW rare plant survey protocols. An approved biologist will conduct the field surveys and will identify and map plant species occurrences according to the protocols. See Chapter 10 for the process to submit survey information to the Plan Permittee and the Permitting Agencies.

PLANT-2 (Rare Plant Protection): If a rare plant listed in AMM PLANT-1 is detected within an area proposed to be disturbed by a Covered Activity or is detected within 250 feet of the area proposed to be disturbed by a Covered Activity, the Implementing Entity will assure one unprotected occurrence of the species is protected within a SSHCP Preserve before any ground disturbance occurs a the project site.

Sacramento and Slender Orcutt Grass

Sacramento Orcutt grass (*Orcuttia viscida*) is a federally and state endangered species and is ranked by the California Native Plant Society as a California Rare Plant Rank 1B.1 species. Slender Orcutt grass (*Orcuttia tenuis*) is a federally threatened and state endangered species and is ranked by the California Native Plant Society as a California Rare Plant Rank 1B.1 species. Both Orcutt grasses are very rare, and the likelihood of finding new occurrences within the Plan Area is low. Due to their rarity, take of either of these species is not permitted under the SSHCP, with the exception of take related to Preserve management and monitoring (see Section 5.2.7, SSHCP Preserve System Covered Activities).

ORCUTT-1 (Orcutt Grass Surveys): If a Covered Activity project site is located within 1 mile of the Mather Core Recovery Area and contains the Vernal Pool land cover type, the project site will be surveyed for Sacramento and slender Orcutt grass by an approved biologist following California Department of Fish and Wildlife (CDFW) rare plant survey protocols (CDFG 2009) or most recent CDFW guidelines to determine if Sacramento and/or slender Orcutt grass is present. An approved biologist will conduct the field investigation to identify and map occurrences. See Chapter 10 for the process to conduct and submit survey information.

ORCUTT-2 (Orcutt Grass Protection): Where known or new Sacramento or slender Orcutt grass occurrences are found, they will be protected within an SSHCP Preserve that is at least 50 acres. The occurrence will be located interior to the Preserve at a distance of no less than 300 feet from the edge of the Preserve boundary. If a Third-Party Project Proponent encounters a previously undiscovered occurrence of Sacramento or slender Orcutt grass on a Covered Activity project site, the Third-Party Project Proponent will contact the Implementing Entity or Land Use Authority Permittee with authority over the project, who will coordinate with the Wildlife Agencies for written concurrence of avoidance to ensure that the project does not cause take of the species.

California Tiger Salamander

To avoid direct and indirect effects of Covered Activities on California tiger salamander (*Ambystoma californiense*), the following AMMs will be implemented.

CTS-1 (California Tiger Salamander Daily Construction Schedule): Ground-disturbing Covered Activities within California tiger salamander modeled habitat (Figure 3-16) will occur outside the breeding and dispersal season (occur after July 31 and before October 15), to the maximum extent practicable. If Covered Activities must be implemented in modeled habitat (Figure 3-16) during the breeding and dispersal season (after October 15 and before July 31), construction activities will not start until 30 minutes after sunrise and must be complete 30 minutes prior to sunset.

CTS-2 (California Tiger Salamander Exclusion Fencing): If a Covered Activity must be implemented in modeled habitat (Figure 3-16) during the breeding and dispersal season (after October 15 and before July 31), exclusion fencing will be installed around the project footprint before October 15. Temporary high-visibility construction fencing will be installed along the edge of work areas, and exclusion fencing will be installed immediately outside of the temporary high-visibility construction fencing to exclude California tiger salamanders from entering the construction area or becoming entangled in the construction fencing. Exclusion fencing will be at least 1 foot tall and be buried

at least 6 inches below the ground to prevent salamanders from going under the fencing. Fencing will remain in place until all construction activities within the construction area are complete. No project activities will occur outside the delineated project footprint. An approved biologist must inspect the exclusion fencing and project site every morning before 7:00 a.m. for integrity and for any entrapped California tiger salamanders. If a California tiger salamander is encountered, refer to CTS-5, below. (However, the Implementing Entity may, with approval of the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW), determine that it is appropriate for a Covered Activity project to not implement CTS-2 for certain long and linear roadway Covered Activity projects if it appears that the exclusion fencing will likely trap individuals or cause more take of California tiger salamander than it would prevent.)

CTS-3 (California Tiger Salamander Monitoring): If Covered Activities must be implemented in modeled habitat (Figure 3-16), an approved biologist experienced with California tiger salamander identification and behavior will monitor the project site, including the integrity of any exclusion fencing. The approved biologist will be on site daily while construction-related activities are taking place, and will inspect the project site for California tiger salamander every morning before 7:00 a.m., or prior to construction activities. As required by BMP-8 (Training of Construction Staff), the approved biologist will also train construction personnel on the required California tiger salamander avoidance procedures, exclusion fencing, and correct protocols in the event that a California tiger salamander enters an active construction zone. If a California tiger salamander is encountered, refer to CTS-5, below.

CTS-4 (Avoid California Tiger Salamander Entrapment): If Covered Activities must be implemented in modeled habitat, all excavated steep-walled holes or trenches more than 6 inches deep will be covered with plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes or trenches will be inspected by the approved biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within California tiger salamander modeled habitat will be inspected for California tiger salamanders by the approved biologist prior to being moved. If a California tiger salamander is encountered, refer to CTS-5, below.

CTS-5 (California Tiger Salamander Encounter Protocol): If a California tiger salamander is encountered during construction activities, the approved biologist will notify the Wildlife Agencies immediately (California Department of Fish and Wildlife (CDFW)

and U.S. Fish and Wildlife Service (USFWS)). Construction activities will be suspended in a 100-foot radius of the animal until the animal is relocated by an approved biologist with appropriate handling permits from the Wildlife Agencies. Prior to relocation, the approved biologist will notify the Wildlife Agencies to determine the appropriate procedures related to relocation. If the animal is handled, a report will be submitted, including date(s), location(s), habitat description, and any corrective measures taken to protect the salamander, within 1 business day to the Wildlife Agencies. The biologist will report any take of listed species to USFWS and CDFW immediately. Any worker who inadvertently injures or kills a California tiger salamander or who finds dead, injured, or entrapped California tiger salamander(s) must immediately report the incident to the approved biologist.

CTS-6 (Erosion Control Materials in California Tiger Salamander Habitat): If erosion control (BMP-2) is implemented within California tiger salamander modeled habitat (Figure 3-16), non-entangling erosion control material will be used to reduce the potential for entrapment. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure that salamanders are not trapped (no monofilament). Coconut coir matting and fiber rolls with burlap are examples of acceptable erosion control materials. This limitation will be communicated to the contractor through use of special provisions included in the bid solicitation package.

CTS-7 (Rodent Control): CTS-7 only applies to projects that are within California tiger salamander modeled habitat (Figure 3-16) and on Covered Activities. Rodent control will be allowed only in developed portions of a Covered Activity project site. Where rodent control is allowed, the method of rodent control will comply with the methods of rodent control discussed in the 4(d) Rule published in the U.S. Fish and Wildlife Service's (2004) final listing rule for tiger salamander.

Western Spadefoot

To avoid direct and indirect effects of Covered Activities on western spadefoot (*Spea hammondii*), the following AMMs will be implemented.

WS-1 (Western Spadefoot Work Window): Ground-disturbing Covered Activities within western spadefoot modeled habitat (Figure 3-17) will occur outside the breeding and dispersal season (after May 15 and before October 15), to the maximum extent practicable.

WS-2 (Western Spadefoot Exclusion Fencing): If Covered Activities must be implemented in modeled habitat (Figure 3-17) after October 15 and before May 15, exclusion fencing

will be installed around the project footprint before October 15, and the project site must be monitored by an approved biologist following rain events. Temporary high-visibility construction fencing will be installed along the edge of work areas, and silt fencing will be installed immediately behind the temporary high-visibility construction fencing to exclude western spadefoot from entering the construction area. Fencing will remain in place until all construction activities within the construction area are completed. No project activities will occur outside the delineated project footprint. If a western spadefoot is encountered, refer to WS-6, below.

WS-3 (Western Spadefoot Monitoring): If Covered Activities must be implemented in modeled habitat (Figure 3-17) in the breeding and dispersal season (after October 15 and before May 15), an approved biologist experienced with western spadefoot identification and behavior will monitor the project site, including the integrity of any exclusion fencing. The approved biologist will be on site daily while construction-related activities are taking place, and will inspect the project site daily for western spadefoot prior to construction activities. The approved biologist will also train construction personnel on the required avoidance procedures, exclusion fencing, and protocols in the event that a western spadefoot enters an active construction zone (i.e., outside the buffer zone). If a western spadefoot is encountered, refer to WS-6, below.

WS-4 (Avoid Western Spadefoot Entrapment): If a Covered Activity occurs in western spadefoot modeled habitat (Figure 3-17), all excavated steep-walled holes and trenches more than 6 inches deep will be covered with plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes and trenches will be inspected by the approved biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within western spadefoot modeled habitat will be inspected for western spadefoot by the approved biologist prior to being moved. If a western spadefoot is encountered, refer to WS-6, below.

WS-5 (Erosion Control Materials in Western Spadefoot Habitat): If erosion control (BMP-2) is implemented within western spadefoot modeled habitat (Figure 3-17), non-entangling erosion control material will be used to reduce the potential for entrapment. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure that western spadefoots are not trapped (no monofilament). Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials.

WS-6 (Western Spadefoot Encounter Protocol): If Covered Activities must be implemented in modeled habitat (Figure 3-17) during the breeding and dispersal season (after October 15 and before May 15), and a western spadefoot is encountered during construction activities, the approved biologist will notify the Wildlife Agencies immediately. Construction activities will be suspended in a 100-foot radius of the animal until the animal leaves the project site on its own volition. If necessary, the approved biologist will notify the Wildlife Agencies to determine the appropriate procedures related to relocation. If the animal is handled, a report will be submitted, including date(s), location(s), habitat description, and any corrective measures taken to protect the western spadefoot within 1 business day to the Wildlife Agencies. The biologist will report any take of listed species to the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife immediately. Any worker who inadvertently injures or kills a western spadefoot or who finds dead, injured, or entrapped western spadefoot(s) must immediately report the incident to the approved biologist.

Giant Gartersnake

To avoid direct and indirect effects of Covered Activities on giant gartersnake (*Thamnophis gigas*), the following AMMs will be implemented.

GGS-1 (Giant Gartersnake Surveys): If the SSHCP giant gartersnake modeled habitat maps (Figure 3-18) show that modeled habitat for giant gartersnake is present within a Covered Activity's project footprint or within 300 feet of a project footprint, then an approved biologist will conduct a field investigation to delineate giant gartersnake aquatic habitat within the project footprint and adjacent areas within 300 feet of the project footprint. In addition to the SSHCP land cover types shown in Figure 3-18, giant gartersnake aquatic habitat includes, but is not limited to, low-gradient streams and creeks, open water, freshwater marsh, agricultural ditches, and rice fields. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. The Third-Party Project Proponent will map all existing or potential sites and provide these maps to the Local Land Use Permittees and the Implementing Entity. Locations of delineated giant gartersnake habitat must also be noted on plans that are submitted to a Local Land Use Permittee. The applicant will use this information to finalize project design. Covered Activities may occur throughout the year as long as giant gartersnake habitat is identified and fully avoided. Otherwise, Covered Activities must comply with GGS-2 through GGS-8, below. See Chapter 10 for the process to conduct and submit survey information.

GGS-2 (Giant Gartersnake Work Window): Covered Activities that do not fully avoid giant gartersnake modeled habitat (Figure 3-18) will be conducted during the snake's active

season. Construction and ground-disturbing activities will be initiated after May 1 and will end prior to September 15. If it appears that construction activities may go beyond September 15, the Third-Party Project Proponent or Plan Permittee will contact the Local Land Use Permittee and the Implementing Entity as soon as possible, but not later than September 1. The Local Land Use Permittee and the Implementing Entity will discuss with the Wildlife Agencies additional measures necessary to minimize take.

GGS-3 (Giant Gartersnake Monitoring): If a Covered Activity is occurring in giant gartersnake modeled habitat (Figure 3-18), an approved biologist experienced with giant gartersnake identification and behavior will monitor the project site, including the integrity of any exclusion fencing. The approved biologist will be on site daily while construction-related activities are taking place in aquatic habitat or within 300 feet of aquatic habitat, and will inspect the project site daily for giant gartersnake prior to construction activities. If a giant gartersnake is encountered, refer to GGS-7. The approved biologist will also train construction personnel on the required avoidance procedures, exclusion fencing, and protocols in the event that a giant gartersnake enters an active construction zone (i.e., outside the buffer zone).

GGS-4 (Giant Gartersnake Habitat Dewatering and Exclusion): If construction activities will occur in giant gartersnake aquatic habitat, aquatic habitat will be dewatered and then remain dry and absent of aquatic prey (e.g., fish and tadpoles) for 15 days prior to initiation of construction activities. If complete dewatering is not possible, the Implementing Entity will be contacted to determine what additional measures may be necessary to minimize effects to giant gartersnake. After aquatic habitat has been dewatered 15 days prior to construction activities, exclusion fencing will be installed extending a minimum of 300 feet into adjacent uplands to isolate both the aquatic and adjacent upland habitat. Exclusionary fencing will be erected 36 inches above ground and buried at least 6 inches below the ground to prevent snakes from attempting to move under the fence into the construction area. In addition, high-visibility fencing will be erected to identify the construction limits and to protect adjacent habitat from encroachment of personnel and equipment. Giant gartersnake habitat outside construction fencing will be avoided by all construction personnel. The fencing and the work area will be inspected by the approved biologist to ensure that the fencing is intact and that no snakes have entered the work area before the start of each work day. The fencing will be maintained by the contractor until completion of the project. If giant gartersnake is encountered, refer to GGS-7, below.

GGS-5 (Avoid Giant Gartersnake Entrapment): If a Covered Activity occurs in giant gartersnake modeled habitat (Figure 3-18), all excavated steep-walled holes and trenches more than 6 inches deep will be covered with plywood (or similar material) or

provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes and trenches will be inspected by the approved biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within giant gartersnake modeled habitat will be inspected for giant gartersnake by the approved biologist prior to being moved. If a giant gartersnake is encountered, refer to GGS-7.

GGS-6 (Erosion Control Materials in Giant Gartersnake Habitat): If erosion control (BMP-2) is implemented within giant gartersnake modeled habitat (Figure 3-18), non-entangling erosion control material will be used to reduce the potential for entrapment. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure snakes are not trapped (no monofilament). Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials.

GGS-7 (Giant Gartersnake Encounter Protocol): If a giant gartersnake is encountered during construction activities, the approved biologist will notify the Wildlife Agencies immediately. Construction activities will be suspended in a 100-foot radius of the animal until the animal leaves the project site on its own volition. If necessary, the approved biologist will notify the Wildlife Agencies to determine the appropriate procedures related to relocation. If the animal is handled, a report will be submitted, including date(s), location(s), habitat description, and any corrective measures taken to protect the giant gartersnake within 1 business day to the Wildlife Agencies. The biologist will report any take of listed species to the U.S. Fish and Wildlife Service immediately. Any worker who inadvertently injures or kills a giant gartersnake or who finds one dead, injured, or entrapped must immediately report the incident to the approved biologist.

GGS-8 (Giant Gartersnake Post-Construction Restoration): After completion of ground-disturbing Covered Activities, the applicant will remove any temporary fill and construction debris and will restore temporarily disturbed areas to pre-project conditions. Restoration work includes such activities as re-vegetating the banks and active channels with a seed mix similar to pre-project conditions. Appropriate methods and plant species used to re-vegetate such areas will be determined on a site-specific basis in consultation with the Implementing Entity. Restoration work may include replanting emergent aquatic vegetation. Refer to the U.S. Fish and Wildlife Service's (USFWS) Guidelines for the Restoration and/or Replacement of Giant Gartersnake Habitat (USFWS 1997), or the most current USFWS guidelines at the time of the

activity. A photo documentation report showing pre- and post-project conditions will be submitted to the Implementing Entity 1 month after implementation of the restoration.

Western Pond Turtle

To avoid direct and indirect effects of Covered Activities on western pond turtle (*Actinemys marmorata*), the following AMMs will be implemented.

WPT-1 (Western Pond Turtle Surveys): If the SSHCP western pond turtle modeled habitat maps (Figure 3-19) show that modeled habitat for western pond turtle is present within a Covered Activity's project footprint or within 300 feet of a project footprint, then an approved biologist will conduct a field investigation to delineate western pond turtle aquatic habitat within the project footprint and within 300 feet of the project footprint. In addition to the SSHCP land cover types shown in Figure 3-19, western pond turtle aquatic habitat includes, but is not limited to, low-gradient streams and creeks, open water, freshwater marsh, and rice fields. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. The Third-Party Project Proponent will map all existing or potential sites and provide those maps to the Local Land Use Permittees and the Implementing Entity. Locations of delineated western pond turtle habitat must also be noted on plans that are submitted to a Local Land Use Permittee. The applicant will use this information to finalize project design. Covered Activities may occur throughout the year as long as western pond turtle habitat is identified and fully avoided. Otherwise, Covered Activities must comply with WPT-2 through WPT-9. See Chapter 10 for the process to conduct and submit survey information.

WPT-2 (Western Pond Turtle Work Window): Maintenance and improvements to existing structures may occur throughout the year as long as western pond turtle habitat is identified and avoided, and movement of equipment is confined to existing roads. Otherwise, construction and ground-disturbing Covered Activities must be conducted outside of western pond turtle's active season. Construction and ground-disturbing activities will be initiated after May 1 and will commence prior to September 15. If it appears that construction activities may go beyond September 15, the appropriate Plan Permittee will contact the Local Land Use Permittee and the Implementing Entity as soon as possible, but not later than September 1, to determine if additional measures are necessary to minimize take.

WPT-3 (Western Pond Turtle Monitoring): If a Covered Activity is occurring in western pond turtle modeled habitat (Figure 3-19), an approved biologist experienced with western pond turtle identification and behavior will monitor the project site, including the

integrity of any exclusion fencing. The approved biologist will be on site daily while construction-related activities are taking place in aquatic habitat or within 300 feet of aquatic habitat, and will inspect the project site daily for western pond turtle prior to construction activities. The approved biologist will also training construction personnel on the required avoidance procedures, exclusion fencing, and protocols in the event that a western pond turtle enters an active construction zone (i.e., outside the buffer zone).

WPT-4 (Western Pond Turtle Habitat Dewatering and Exclusion): If construction activities will occur in western pond turtle aquatic habitat, aquatic habitat for the turtle will be dewatered and then remain dry and absent of aquatic prey (e.g., crustaceans and other aquatic invertebrates) for 15 days prior to the initiation of construction activities. If complete dewatering is not possible, the Implementing Entity will be contacted to determine what additional measures may be necessary to minimize effects to western pond turtle. After aquatic habitat has been dewatered 15 days prior to construction activities, exclusion fencing will be installed extending a minimum of 300 feet into adjacent uplands to isolate both the aquatic and adjacent upland habitat. Exclusionary fencing will be erected 36 inches above ground and buried at least 6 inches below the ground to prevent turtles from attempting to burrow or move under the fence into the construction area. In addition, high-visibility fencing will be erected to identify construction limits and to protect adjacent habitat from encroachment of personnel and equipment. Western pond turtle habitat outside construction fencing will be avoided by all construction personnel. The fencing and work area will be inspected by the approved biologist to ensure that the fencing is intact and that no turtles have entered the work area before the start of each work day. Fencing will be maintained by the contractor until completion of the project. If, after exclusion fencing and dewatering, western pond turtles are found within the project footprint or within 300 feet of the project footprint, the Third-Party Project Proponent will discuss the next best steps with the Implementing Entity and Wildlife Agencies.

WPT-5 (Avoid Western Pond Turtle Entrapment): If a Covered Activity occurs within western pond turtle modeled habitat (Figure 3-19), all excavated steep-walled holes and trenches more than 6 inches deep will be covered with plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes and trenches will be inspected by the approved biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within western pond turtle modeled habitat will be inspected for western pond turtle by the approved biologist prior to being moved.

WPT-6 (Erosion Control Materials in Western Pond Turtle Habitat): If erosion control (BMP-2) is implemented within western pond turtle modeled habitat (Figure 3-19), non-entangling erosion control material will be used to reduce the potential for entrapment. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure that turtles are not trapped (no monofilament). Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials.

WPT-7 (Western Pond Turtle Modeled Habitat Speed Limit): Covered Activity construction and maintenance vehicles will observe a 20-mile-per-hour speed limit within western pond turtle modeled upland habitat (Figure 3-19).

WPT-8 (Western Pond Turtle Encounter Protocol): If a western pond turtle is encountered during construction activities, the approved biologist will notify the Wildlife Agencies immediately. Construction activities will be suspended in a 100-foot radius of the animal until the animal leaves the project site on its own volition. If necessary, the approved biologist will notify the Wildlife Agencies to determine the appropriate procedures related to relocation. If the animal is handled, a report will be submitted, including date(s), location(s), habitat description, and any corrective measures taken to protect the turtle, within 1 business day to the Wildlife Agencies. The biologist will report any take of listed species to the U.S. Fish and Wildlife Service immediately. Any worker who inadvertently injures or kills a western pond turtle or who finds one dead, injured, or entrapped must immediately report the incident to the approved biologist.

WPT-9 (Western Pond Turtle Post-Construction Restoration): After completion of ground-disturbing Covered Activities, the applicant will remove any temporary fill and construction debris and will restore temporarily disturbed areas to pre-project conditions. Restoration work includes such activities as re-vegetating the banks and active channels with a seed mix similar to pre-project conditions. Appropriate methods and plant species used to re-vegetate such areas will be determined on a site-specific basis in consultation with the Implementing Entity. Restoration work may include replanting emergent aquatic vegetation and placing appropriate artificial or natural basking areas in waterways and wetlands. A photo documentation report showing pre- and post-project conditions will be submitted to the Implementing Entity 1 month after implementation of the restoration.

Tricolored Blackbird

To avoid direct and indirect effects of Covered Activities on tricolored blackbird (*Agelaius tricolor*), the following AMMs will be implemented.

TCB-1 (Tricolored Blackbird Surveys): If modeled habitat for tricolored blackbird is present within a Covered Activity's project footprint or within 500 feet of a project footprint, then an approved biologist will conduct a field investigation to determine if existing or potential nesting or foraging sites are present within the project footprint and adjacent areas within 500 feet of the project footprint. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. Within the Plan Area, potential tricolor blackbird nest sites are often associated with freshwater marsh and seasonal wetlands, or in thickets of willow, blackberry, wild rose, thistle, and other thorny vegetation. Tricolored blackbirds are also known to nest in crops associated with dairy farms. Foraging habitat is associated with annual grasslands, wet and dry vernal pools and other seasonal wetlands, agricultural fields (such as large tracts of alfalfa and pastures with continuous haying schedules and recently tilled fields), cattle feedlots, and dairies. The Third-Party Project Proponent will map all existing or potential nesting or foraging sites and provide these maps to the Local Land Use Permittees and Implementing Entity. Nesting sites must also be noted on plans that are submitted to a Local Land Use Permittee. See Chapter 10 for the process to conduct and submit survey information.

TCB-2 (Tricolored Blackbird Pre-Construction Surveys): Pre-construction surveys will be required to determine if active nests are present within a project footprint or within 500 feet of a project footprint if existing or potential nest sites were found during design surveys and construction activities will occur during the breeding season (March 1 through September 15). An approved biologist will conduct pre-construction surveys within 30 days and within 3 days of ground-disturbing activities, and within the proposed project footprint and 500 feet of the proposed project footprint to determine the presence of nesting tricolored blackbird. Pre-construction surveys will be conducted during the breeding season (March 1 through August 31). Surveys conducted in February (to meet pre-construction survey requirements for work starting in March) must be conducted within 14 days and 3 days in advance of ground-disturbing activities. If a nest is present, then TCB-3 and TCB-4 will be implemented. The approved biologist will inform the Land Use Authority Permittee and the Implementing Entity of species locations, and they in turn will notify the Wildlife Agencies.

TCB-3 (Tricolored Blackbird Nest Buffer): If active nests are found within the project footprint or within 500 feet of any project-related Covered Activity, the Third-Party Project Proponent will establish a 500-foot temporary buffer around the active nest until the young have fledged.

TCB-4 (Tricolored Blackbird Nest Buffer Monitoring): If nesting tricolored blackbirds are present within the project footprint or within 500 feet of any project-related Covered

Activity, then an approved biologist experienced with tricolored blackbird behavior will be retained by the Third-Party Project Proponent to monitor the nest throughout the nesting season and to determine when the young have fledged. The approved biologist will be on site daily while construction-related activities are taking place near the disturbance buffer. Work within the nest disturbance buffer will not be permitted. If the approved biologist determines that tricolored blackbirds are exhibiting agitated behavior, construction will cease until the buffer size is increased to a distance necessary to result in no harm or harassment to the nesting tricolored blackbirds. If the biologist determines that the colonies are at risk, a meeting with the Third-Party Project Proponent, Implementing Entity, and Wildlife Agencies will be held to determine the best course of action to avoid nest abandonment or take of individuals. The approved biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a tricolored blackbird flies into an active construction zone (i.e., outside the buffer zone).

TCB-5 (Timing of Pesticide Use and Harvest Timing on Agricultural Preserves): On SSHCP Agricultural Preserves, pesticides (including herbicides) will not be applied from January 1 through July 15.

Swainson's Hawk

To avoid direct and indirect effects of Covered Activities on Swainson's hawk (*Buteo swainsoni*), the following AMMs will be implemented.

SWHA-1 (Swainson's Hawk Surveys): If modeled habitat for Swainson's hawk (Figure 3-25) is present within a Covered Activity's project footprint or within 0.25 mile of a project footprint, then an approved biologist will conduct a survey to determine if existing or potential nesting sites are present within the project footprint and adjacent areas within 0.25 mile of the project footprint. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. Nest sites are often associated with Riparian land cover, but also include lone trees in fields, trees along roadways, and trees around structures. Nest trees may include, but are not limited to, Fremont's cottonwood (*Populus fremontii*), oaks (*Quercus* spp.), willows (*Salix* spp.), walnuts (*Juglans* spp.), eucalyptus (*Eucalyptus* spp.), pines (*Pinus* spp.), and Deodar cedar (*Cedrus deodara*). The Third-Party Project Proponent will map all existing and potential nesting sites and provide these maps to the Local Land Use Permittees and Implementing Entity. Nesting sites must also be noted on plans that are submitted to a Local Land Use Permittee. See Chapter 10 for the process to conduct and submit survey information.

SWHA-2 (Swainson's Hawk Pre-Construction Surveys): Pre-construction surveys will be required to determine if active nests are present within a project footprint or within 0.25 mile of a project footprint if existing or potential nest sites were found during initial surveys and construction activities will occur during the breeding season (March 1 through September 15). An approved biologist will conduct pre-construction surveys within 30 days and 3 days of ground-disturbing activities to determine presence of nesting Swainson's hawk. Pre-construction surveys will be conducted during the breeding season (March 1 through September 15). If a nest is present, then SWHA-3 and SWHA-4 will be implemented. The approved biologist will inform the Land Use Authority Permittee and Implementing Entity of species locations, and they in turn will notify the Wildlife Agencies.

SWHA-3 (Swainson's Hawk Nest Buffer): If active nests are found within the project footprint or within 0.25 mile of any project-related Covered Activity, the Third-Party Project Proponent will establish a 0.25 mile disturbance buffer around the active nest until the young have fledged, with concurrence from the Wildlife Agencies.

SWHA-4 (Swainson's Hawk Nest Buffer Monitoring): If nesting Swainson's hawks are present within the project footprint or within 0.25 mile of any project-related Covered Activity, then an approved biologist experienced with Swainson's hawk behavior will be retained by the Third-Party Project Proponent to monitor the nest throughout the nesting season and to determine when the young have fledged. The approved biologist will be on site daily while construction-related activities are taking place within the buffer. Work within the temporary nest disturbance buffer can occur with the written permission of the Implementing Entity and Wildlife Agencies. If nesting Swainson's hawks begin to exhibit agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, the approved biologist will have the authority to shut down construction activities. If agitated behavior is exhibited, the biologist, Third-Party Project Proponent, Implementing Entity, and Wildlife Agencies will meet to determine the best course of action to avoid nest abandonment or take of individuals. The approved biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a Swainson's hawk flies into an active construction zone (i.e., outside the buffer zone).

Greater Sandhill Crane

To avoid direct and indirect effects of Covered Activities on greater sandhill crane (*Grus canadensis*), the following AMMs will be implemented.

GSC-1 (Greater Sandhill Crane Surveys): If modeled habitat for greater sandhill crane (Figure 3-22) is present within a Covered Activity's project footprint or within 0.5 mile of a project footprint, then an approved biologist will conduct a field investigation to determine if existing or potential roosting sites are present within the project footprint and adjacent areas within 0.5 mile of the project footprint. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. Roosting sites within the Plan Area are often associated with flooded fields, seasonal wetlands, and freshwater marsh. The Third-Party Project Proponent will map all existing or potential roosting sites and provide these maps to the Local Land Use Permittees and Implementing Entity. Roosting sites must also be noted on plans that are submitted to a Local Land Use Permittee. See Chapter 10 for the process to conduct and submit survey information.

GSC-2 (Greater Sandhill Crane Pre-Construction Surveys): Pre-construction surveys will be required to determine if active roosting sites are present within a project footprint or within 0.5 mile of a project footprint if existing or potential roosting sites were found during initial surveys and construction activities will occur when wintering flocks are present within the Plan Area (September 1 through March 15). An approved biologist will conduct pre-construction surveys within 15 days of ground-disturbing activities, and within 0.5 mile of a project footprint, to determine presence of roosting greater sandhill cranes. Pre-construction surveys will be conducted September 1 through March 15, when wintering flocks are present within the Plan Area. If birds are present, then GSC-3, GSC-4, and GSC-5 will be implemented. The approved biologist will inform the Land Use Authority Permittee and Implementing Entity of species locations, and they in turn will notify the Wildlife Agencies.

GSC-3 (Greater Sandhill Crane Roosting Buffer): If active roosting sites are found within the project footprint or within 0.5 mile of any project-related Covered Activity, the Third-Party Project Proponent will establish a 0.5 mile temporary roosting disturbance buffer around the roosting site until the cranes have left.

GSC-4 (Greater Sandhill Crane Visual Barrier): Greater sandhill cranes have low tolerance for human disturbance, and such disturbance has caused cranes to abandon foraging and roosting sites. Repeat disturbance affects their ability to feed and store energy needed for survival. If project-related activities occur within 0.5 mile of a known roosting site as identified by surveys conducted during implementation of GSC-1 or GSC-2, a visual barrier will be constructed.

GSC-5 (Greater Sandhill Crane Roosting Buffer Monitoring): If roosting sites are found within the project footprint or within 0.50 mile of any project-related Covered Activity, an

approved biologist experienced with greater sandhill crane behavior will be retained by the Third-Party Project Proponent to monitor the roosting site throughout the roosting season and to determine when the birds have left. The approved biologist will be on site daily while construction-related activities are taking place within the disturbance buffer. Work within the temporary disturbance buffer can only occur with the written permission of the Implementing Entity and Wildlife Agencies. If greater sandhill cranes are abandoning their roosting and/or forage sites, the approved biologist will have the authority to shut down construction activities. If roost abandonment occurs, the approved biologist, Third-Party Project Proponent, Implementing Entity, and Wildlife Agencies will meet to determine the best course of action to avoid harm and harassment of individuals. The approved biologist will also train construction personnel on the avoidance procedures, buffer zones, and protocols in the event that greater sandhill cranes move into an active construction zone (i.e., outside the buffer zone).

Western Burrowing Owl

To avoid direct and indirect effects of Covered Activities on western burrowing owl (*Athene cunicularia*), the following AMMs will be implemented.

WBO-1 (Western Burrowing Owl Surveys): Surveys within modeled habitat are required for both the breeding and non-breeding season. If the project site falls within modeled habitat, an approved biologist will survey the project site and map all burrows, noting any burrows that may be occupied. Occupied burrows are often (but not always) indicated by tracks, feathers, egg shell fragments, pellets, prey remains, and/or excrement. Surveying and mapping will be conducted by the approved biologist while walking transects throughout the entire project site plus all accessible areas within a 250-foot radius from the project site. The centerline of these transects will be no more than 50 feet apart and will vary in width to account for changes in terrain and vegetation that can preclude complete visual coverage of the area. For example, in hilly terrain with patches of tall grass, transects will be closer together, and in open areas with little vegetation, they can be 50 feet apart. This methodology is consistent with current survey protocols for this species (California Burrowing Owl Consortium 1993). Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. If suitable habitat is identified during the initial survey, and if the project does not fully avoid the habitat, pre-construction surveys will be required. Burrowing owl habitat is fully avoided if project-related activities do not impinge on a 250-foot buffer established by the approved biologist around suitable burrows. See Chapter 10 for the process to conduct and submit survey information.

WBO-2 (Western Burrowing Owl Pre-Construction Surveys): Prior to any Covered Activity ground disturbance, an approved biologist will conduct pre-construction surveys in all areas that were identified as suitable habitat during the initial surveys. The purpose of the pre-construction surveys is to document the presence or absence of burrowing owls on the project site, particularly in areas within 250 feet of construction activities. To maximize the likelihood of detecting owls, the pre-construction survey will last a minimum of 3 hours. The survey will begin 1 hour before sunrise and continue until 2 hours after sunrise (3 hours total), or begin 2 hours before sunset and continue until 1 hour after sunset. Additional time may be required for large project sites. A minimum of two pre-construction surveys will be conducted (if owls are detected on the first survey, a second survey is not needed). All owls observed will be counted and their location will be mapped. Surveys will conclude no more than 2 calendar days prior to construction. Therefore, the Third-Party Project Proponent must begin surveys no more than 4 days prior to construction (2 days of surveying plus up to 2 days between surveys and construction). To avoid last-minute changes in schedule or contracting that may occur if burrowing owls are found, the Third-Party Project Proponent may also conduct a preliminary survey up to 15 days before construction. This preliminary survey may count as the first of the two required surveys as long as the second survey concludes no more than 2 calendar days in advance of construction.

WBO-3 (Burrowing Owl Avoidance): If western burrowing owl or evidence of western burrowing owl is observed on the project site or within 250 feet of the project site during pre-construction surveys, then the following will occur:

During Breeding Season: If the approved biologist finds evidence of western burrowing owls within a project site during the breeding season (February 1 through August 31), all project-related activities will avoid nest sites during the remainder of the breeding season or while the nest remains occupied by adults or young (nest occupation includes individuals or family groups foraging on or near the site following fledging). Avoidance is establishment of a minimum 250-foot buffer zone around nests. Construction and other project-related activities may occur outside of the 250-foot buffer zone. Construction and other project-related activities may be allowed inside of the 250-foot non-disturbance buffer during the breeding season if the nest is not disturbed, and the Third-Party Project Proponent develops an avoidance, minimization, and monitoring plan that is approved by the Implementing Entity and Wildlife Agencies prior to project construction based on the following criteria:

- The Implementing Entity and Wildlife Agencies approve of the avoidance and minimization plan provided by the project applicant.

- An approved biologist monitors the owls for at least 3 days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).
- The same approved biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.

If there is any change in owl nesting and foraging behavior as a result of construction activities, the approved biologist will have authority to shut down activities within the 250-foot buffer. Construction cannot resume within the 250-foot buffer until any owls present are no longer affected by nearby construction activities, and with written concurrence from the Wildlife Agencies.

If monitoring by the approved biologist indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use, the non-disturbance buffer zone may be removed if approved by the Wildlife Agencies. The approved biologist will excavate the burrow in accordance with the latest California Department of Fish and Wildlife guidelines for burrowing owl to prevent reoccupation after receiving approval from the Wildlife Agencies.

The Implementing Entity and Wildlife Agencies will respond to a request from the Third-Party Project Proponent to review the proposed construction monitoring plan within 21 days.

During Non-Breeding Season: During the non-breeding season (September 1 through January 31), the approved biologist will establish a minimum 250-foot non-disturbance buffer around occupied burrows. Construction activities outside of this 250-foot buffer will be allowed. Construction activities within the non-disturbance buffer will be allowed if the following criteria are met to prevent owls from abandoning over-wintering sites:

- An approved biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).
- The same approved biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.
- If there is any change in owl foraging behavior as a result of construction activities, the approved biologist will have authority to shut down activities within the 250-foot buffer.
- If the owls are gone for at least 1 week, the Third-Party Project Proponent may request approval from the Implementing Entity and Wildlife Agencies that an approved biologist excavate usable burrows and install one-way exclusionary

devices to prevent owls from re-occupying the site. After all usable burrows are excavated, the buffer zone will be removed and construction may continue.

Monitoring must continue as described above for the non-breeding season as long as the burrow remains active.

WBO-4 (Burrowing Owl Construction Monitoring): During construction of Covered Activities, 250-foot construction buffer zones will be established and maintained around any occupied burrow. An approved biologist will monitor the site to ensure that buffers are enforced and owls are not disturbed. The approved biologist will also train construction personnel on avoidance procedures, buffer zones, and protocols in the event that a burrowing owl flies into an active construction zone.

WBO-5 (Burrowing Owl Passive Relocation): Passive relocation is not allowed without the express written approval of the Wildlife Agencies. Passive owl relocation may be allowed on a case-by-case basis on project sites during the non-breeding season (September 1 through January 31) with the written approval of the Wildlife Agencies if the other measures described in this condition preclude work from continuing. Passive relocation must be done in accordance with the latest California Department of Fish and Wildlife guidelines for burrowing owl. Passive relocation will only be proposed if the burrow needing to be removed or with the potential to collapse from construction activities is the result of a Covered Activity. If passive relocation is approved by the Wildlife Agencies, an approved biologist can passively exclude birds from their burrows during the non-breeding season by installing one-way doors in burrow entrances. These doors will be in place for 48 hours to ensure that owls have left the burrow, and then the biologist will excavate the burrow to prevent reoccupation. Burrows will be excavated using hand tools only. During excavation, an escape route will be maintained at all times. This may include inserting an artificial structure into the burrow to avoid having materials collapse into the burrow and trap owls inside. Other methods of passive relocation, based on best available science, may be approved by the Wildlife Agencies over the 50-year Permit Term.

WBO-6 (Burrowing Owl Timing of Maintenance Activities): All activities adjacent to existing or planned Preserves, Preserve Setbacks, or Stream Setback areas will be seasonally timed, when safety permits, to avoid or minimize adverse effects on occupied burrows.

WBO-7 (Rodent Control): Rodent control will be allowed only in developed portions of a Covered Activity project site within western burrowing owl modeled habitat. Where rodent control is allowed, the method of rodent control will comply with the methods of

rodent control discussed in the 4(d) Rule published in the U.S. Fish and Wildlife Service's (2004) final listing rule for tiger salamander.

Covered Raptor Species

To avoid direct and indirect effects of Covered Activities on covered raptor species, the following AMMs will be implemented. This measure applies to Cooper's hawk (*Accipiter cooperii*), loggerhead shrike (*Lanius ludovicianus*), northern harrier (*Circus cyaneus*), and white-tailed kite (*Elanus leucurus*). The following AMMs do not apply to ferruginous hawk (*Buteo regalis*), as they do not nest in the Plan Area. The following AMMs also do not apply to Swainson's hawk or burrowing owl, as specific AMMs have been developed for these covered raptor species.

RAPTOR-1 (Raptor Surveys): If modeled habitat for a covered raptor species (Figures 3-20, 3-23, 3-24, or 3-28) is present within a Covered Activity's project footprint or within 0.25 mile of a project footprint, then an approved biologist will conduct a field investigation to determine if existing or potential nesting sites are present within the project footprint and adjacent areas within 0.25 mile of the project footprint. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. The Third-Party Project Proponent will map all existing or potential nesting sites and provide these maps to the Local Land Use Permittees and Implementing Entity. Nesting sites must also be noted on plans that are submitted to a Local Land Use Permittee. See Chapter 10 for the process to conduct and submit survey information.

RAPTOR-2 (Raptor Pre-Construction Surveys): Pre-construction surveys will be required to determine if active nests are present with a project footprint or within 0.25 mile of a project footprint if existing or potential nest sites are found during initial surveys and construction activities will occur during the raptor breeding season. An approved biologist will conduct pre-construction surveys within 30 days and 3 days of ground-disturbing activities within the proposed project footprint and within 0.25 mile of the proposed project footprint to determine presence of nesting covered raptor species. Pre-construction surveys will be conducted during the raptor breeding season. If a nest is present, then RAPTOR-3 and RAPTOR-4 will be implemented. The approved biologist will inform the Land Use Authority Permittee and Implementing Entity of species locations, and they in turn will notify the Wildlife Agencies.

RAPTOR-3 (Raptor Nest/Roost Buffer): If active nests are found within the project footprint or within 0.25 mile of any project-related Covered Activity, the Third-Party Project

Proponent will establish a 0.25 mile temporary nest disturbance buffer around the active nest until the young have fledged.

RAPTOR-4 (Raptor Nest/Roost Buffer Monitoring): If project-related Covered Activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then an approved biologist experienced with raptor behavior will be retained by the Third-Party Project Proponent to monitor the nest throughout the nesting season and to determine when the young have fledged. The approved biologist will be on site daily while construction-related activities are taking place within the disturbance buffer. Work within the temporary nest disturbance buffer can occur with the written permission of the Implementing Entity and Wildlife Agencies. If nesting raptors begin to exhibit agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, the approved biologist/monitor will have the authority to shut down construction activities. If agitated behavior is exhibited, the biologist, Third-Party Project Proponent, Implementing Entity, and Wildlife Agencies will meet to determine the best course of action to avoid nest abandonment or take of individuals. The approved biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a covered raptor species flies into an active construction zone (i.e., outside the buffer zone).

Western Red Bat

To avoid direct and indirect effects of Covered Activities on western red bat (*Lasiurus blossevillii*), the following AMMs will be implemented.

BAT-1 (Winter Hibernaculum Surveys): If modeled habitat (Figure 3-30) for western red bat is present within 300 feet of a Covered Activity's project footprint, then an approved biologist will conduct a field investigation of the project footprint and adjacent areas within 300 feet of a project footprint to determine if a potential winter hibernaculum is present, and to identify and map potential hibernaculum sites. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. If potential hibernaculum sites are found, the Third-Party Project Proponent will note their locations on project designs and will design the project to avoid all areas within a 300-foot buffer around the potential hibernaculum sites. Winter hibernaculum habitat is fully avoided if project-related activities do not impinge on a 300-foot buffer established by the approved biologist around an existing or potential winter hibernaculum site. See Chapter 10 for the process to conduct and submit survey information.

BAT-2 (Winter Hibernaculum Pre-Construction Surveys): If the Third-Party Project Proponent elects not to avoid potential winter hibernaculum sites within the project footprint plus a 300-foot buffer, additional surveys are required. Prior to any ground disturbance related to Covered Activities, an approved biologist will conduct a pre-construction survey within 3 days of ground-disturbing activities within the project footprint and 300 feet of the project footprint to determine the presence of winter hibernaculum sites. Pre-construction surveys will be conducted during the winter hibernaculum season (November 1 through March 31). If a winter hibernaculum is present, then BAT-3 and BAT-4 will be implemented. The approved biologist will inform the Land Use Authority Permittee and Implementing Entity of species locations, and they in turn will notify the Wildlife Agencies.

BAT-3 (Winter Hibernaculum Buffer): If active winter hibernaculum sites are found within the project footprint or within 300 feet of the project footprint, the Third-Party Project Proponent will establish a 300-foot temporary disturbance buffer around the active winter hibernaculum site until bats have vacated the hibernaculum and the Implementing Entity and Wildlife Agencies concur.

BAT-4 (Bat Eviction Methods): An approved biologist will determine if non-maternity and non-hibernaculum day and night roosts are present on the project site. If necessary, an approved biologist will use safe eviction methods to remove bats if direct impacts to non-maternity and non-hibernaculum day and night roosts cannot be avoided. If a winter hibernaculum site is present, Covered Activities will not occur until the hibernaculum is vacated, or, if necessary, safely evicted using methods acceptable to the Wildlife Agencies.

Appendix D

Air Quality, Greenhouse Gas, and Energy Modeling

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Residences at Capital Center

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	14.60	1000sqft	0.34	14,600.00	0
High Turnover (Sit Down Restaurant)	5.00	1000sqft	0.72	5,000.00	0
Apartments Mid Rise	240.00	Dwelling Unit	8.71	240,000.00	641
Condo/Townhouse	177.00	Dwelling Unit	9.93	177,000.00	473

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2026
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	186.1	**CH4 Intensity (lb/MWhr)**	0.012	**N2O Intensity (lb/MWhr)**	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SMUD Intentisty Factor update accoding to 2030 Carbon Neutrality goal

Land Use - Project specific acreage

Construction Phase - 36-month construction schedule

Grading - 22-acres to be graded

Architectural Coating - SMAQMD Rule 442

Vehicle Trips - Trip adjustments

Area Coating - SMAQMD Rule 442

Energy Use - No residential natural gas use. NG use for pool/spa and 2 outdoor fire pits- see supplemental calcs.

Construction Off-road Equipment Mitigation - SMAQMD Construciton BMPs

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	34.00
tblConstructionPhase	NumDays	300.00	634.00
tblConstructionPhase	NumDays	30.00	60.00
tblConstructionPhase	NumDays	20.00	34.00
tblConstructionPhase	NumDays	10.00	17.00
tblEnergyUse	NT24E	3,054.10	3,842.08
tblEnergyUse	NT24E	3,795.01	8,621.49
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	NT24NG	12.42	56.02
tblEnergyUse	T24E	98.18	2,071.56
tblEnergyUse	T24E	80.14	4,826.48
tblEnergyUse	T24E	3.05	9.84
tblEnergyUse	T24E	7.86	25.18
tblEnergyUse	T24NG	6,729.23	0.00
tblEnergyUse	T24NG	16,185.01	0.00
tblEnergyUse	T24NG	23.15	0.00
tblEnergyUse	T24NG	59.07	0.00
tblGrading	AcresOfGrading	180.00	22.00
tblGrading	AcresOfGrading	25.50	22.00
tblLandUse	LotAcreage	0.11	0.72

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	6.32	8.71
tblLandUse	LotAcreage	11.06	9.93
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.012
tblProjectCharacteristics	CO2IntensityFactor	357.98	186.1
tblProjectCharacteristics	N2OIntensityFactor	0.004	0.002
tblVehicleTrips	CC_TL	5.00	0.00
tblVehicleTrips	CC_TL	5.00	4.00
tblVehicleTrips	CC_TTP	64.10	0.00
tblVehicleTrips	CNW_TL	6.50	0.00
tblVehicleTrips	CNW_TL	6.50	3.30
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	10.00	0.00
tblVehicleTrips	CW_TL	10.00	5.00
tblVehicleTrips	CW_TTP	16.90	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	HO_TL	6.50	3.38
tblVehicleTrips	HO_TL	6.50	3.30
tblVehicleTrips	HS_TL	5.00	4.00
tblVehicleTrips	HS_TL	5.00	4.00
tblVehicleTrips	HW_TL	10.00	5.00
tblVehicleTrips	HW_TL	10.00	5.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	52.00	0.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	ST_TR	4.91	4.58
tblVehicleTrips	ST_TR	8.14	6.84
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	122.40	182.21
tblVehicleTrips	SU_TR	4.09	4.58
tblVehicleTrips	SU_TR	6.28	6.84
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	142.64	182.21
tblVehicleTrips	WD_TR	5.44	4.58
tblVehicleTrips	WD_TR	7.32	6.84
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	112.18	182.21

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1836	1.7614	1.4695	3.1700e-003	0.4052	0.0768	0.4819	0.1990	0.0709	0.2699	0.0000	280.8540	280.8540	0.0729	3.2900e-003	283.6574
2023	0.3278	2.2455	3.1399	7.2400e-003	0.3316	0.0942	0.4257	0.0890	0.0886	0.1776	0.0000	653.7531	653.7531	0.0820	0.0238	662.8801
2024	0.3092	2.1255	3.0857	7.1900e-003	0.3341	0.0835	0.4176	0.0897	0.0785	0.1682	0.0000	650.6718	650.6718	0.0815	0.0232	659.6107
2025	1.8029	0.7658	1.2146	2.6500e-003	0.1104	0.0298	0.1401	0.0296	0.0279	0.0575	0.0000	239.5404	239.5404	0.0357	6.9600e-003	242.5057
Maximum	**1.8029**	**2.2455**	**3.1399**	**7.2400e-003**	**0.4052**	**0.0942**	**0.4819**	**0.1990**	**0.0886**	**0.2699**	**0.0000**	**653.7531**	**653.7531**	**0.0820**	**0.0238**	**662.8801**

ITEM 11.1 **ATTACHMENT 1**

Residences at Capital Center - Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1836	1.7614	1.4695	3.1700e-003	0.2049	0.0768	0.2816	0.0957	0.0709	0.1666	0.0000	280.8538	280.8538	0.0729	3.2900e-003	283.6571
2023	0.3278	2.2455	3.1399	7.2400e-003	0.3063	0.0942	0.4005	0.0828	0.0886	0.1714	0.0000	653.7527	653.7527	0.0820	0.0238	662.8797
2024	0.3092	2.1255	3.0857	7.1900e-003	0.3086	0.0835	0.3921	0.0835	0.0785	0.1620	0.0000	650.6714	650.6714	0.0815	0.0232	659.6104
2025	1.8029	0.7658	1.2146	2.6500e-003	0.1019	0.0298	0.1317	0.0275	0.0279	0.0555	0.0000	239.5402	239.5402	0.0357	6.9600e-003	242.5055
Maximum	**1.8029**	**2.2455**	**3.1399**	**7.2400e-003**	**0.3086**	**0.0942**	**0.4005**	**0.0957**	**0.0886**	**0.1714**	**0.0000**	**653.7527**	**653.7527**	**0.0820**	**0.0238**	**662.8797**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**21.96**	**0.00**	**17.71**	**28.93**	**0.00**	**17.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**8-1-2022**	**10-31-2022**	1.3478	1.3478
2	**11-1-2022**	**1-31-2023**	0.8089	0.8089
3	**2-1-2023**	**4-30-2023**	0.6323	0.6323
4	**5-1-2023**	**7-31-2023**	0.6501	0.6501
5	**8-1-2023**	**10-31-2023**	0.6519	0.6519
6	**11-1-2023**	**1-31-2024**	0.6418	0.6418
7	**2-1-2024**	**4-30-2024**	0.6003	0.6003
8	**5-1-2024**	**7-31-2024**	0.6103	0.6103

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

9	**8-1-2024**	**10-31-2024**	0.6120	0.6120
10	**11-1-2024**	**1-31-2025**	0.6016	0.6016
11	**2-1-2025**	**4-30-2025**	0.5294	0.5294
12	**5-1-2025**	**7-31-2025**	1.7894	1.7894
		Highest	1.7894	1.7894

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.0036	0.0495	4.2966	2.3000e-004		0.0238	0.0238		0.0238	0.0238	0.0000	7.0251	7.0251	6.7300e-003	0.0000	7.1933
Energy	7.5900e-003	0.0690	0.0580	4.1000e-004		5.2500e-003	5.2500e-003		5.2500e-003	5.2500e-003	0.0000	477.0054	477.0054	0.0274	5.7000e-003	479.3867
Mobile	1.1741	1.2277	8.9936	0.0166	1.7920	0.0136	1.8057	0.4790	0.0127	0.4917	0.0000	1,586.2106	1,586.2106	0.1288	0.0875	1,615.5101
Waste						0.0000	0.0000		0.0000	0.0000	73.3447	0.0000	73.3447	4.3346	0.0000	181.7084
Water						0.0000	0.0000		0.0000	0.0000	10.6966	17.9745	28.6711	0.0380	0.0235	36.6100
Total	**3.1853**	**1.3462**	**13.3482**	**0.0173**	**1.7920**	**0.0427**	**1.8347**	**0.4790**	**0.0418**	**0.5208**	**84.0413**	**2,088.2156**	**2,172.2568**	**4.5354**	**0.1167**	**2,320.4085**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.0036	0.0495	4.2966	2.3000e-004		0.0238	0.0238		0.0238	0.0238	0.0000	7.0251	7.0251	6.7300e-003	0.0000	7.1933
Energy	7.5900e-003	0.0690	0.0580	4.1000e-004		5.2500e-003	5.2500e-003		5.2500e-003	5.2500e-003	0.0000	477.0054	477.0054	0.0274	5.7000e-003	479.3867
Mobile	1.1741	1.2277	8.9936	0.0166	1.7920	0.0136	1.8057	0.4790	0.0127	0.4917	0.0000	1,586.2106	1,586.2106	0.1288	0.0875	1,615.5101
Waste						0.0000	0.0000		0.0000	0.0000	73.3447	0.0000	73.3447	4.3346	0.0000	181.7084
Water						0.0000	0.0000		0.0000	0.0000	10.6966	17.9745	28.6711	0.0380	0.0235	36.6100
Total	**3.1853**	**1.3462**	**13.3482**	**0.0173**	**1.7920**	**0.0427**	**1.8347**	**0.4790**	**0.0418**	**0.5208**	**84.0413**	**2,088.2156**	**2,172.2568**	**4.5354**	**0.1167**	**2,320.4085**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2022	8/23/2022	5	17	
2	Grading	Grading	8/24/2022	11/15/2022	5	60	
3	Building Construction	Building Construction	11/16/2022	4/21/2025	5	634	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	4/22/2025	6/6/2025	5	34	
5	Architectural Coating	Architectural Coating	6/9/2025	7/24/2025	5	34	

Acres of Grading (Site Preparation Phase): 22

Acres of Grading (Grading Phase): 22

Acres of Paving: 0

Residential Indoor: 844,425; Residential Outdoor: 281,475; Non-Residential Indoor: 32,775; Non-Residential Outdoor: 10,925; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	309.00	48.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	62.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1652	0.0000	0.1652	0.0857	0.0000	0.0857	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0270	0.2812	0.1674	3.2000e-004		0.0137	0.0137		0.0126	0.0126	0.0000	28.4235	28.4235	9.1900e-003	0.0000	28.6533
Total	**0.0270**	**0.2812**	**0.1674**	**3.2000e-004**	**0.1652**	**0.0137**	**0.1789**	**0.0857**	**0.0126**	**0.0983**	**0.0000**	**28.4235**	**28.4235**	**9.1900e-003**	**0.0000**	**28.6533**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.1000e-004	3.8600e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.9253	0.9253	3.0000e-005	3.0000e-005	0.9344
Total	**4.7000e-004**	**3.1000e-004**	**3.8600e-003**	**1.0000e-005**	**1.1200e-003**	**1.0000e-005**	**1.1300e-003**	**3.0000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.9253**	**0.9253**	**3.0000e-005**	**3.0000e-005**	**0.9344**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0744	0.0000	0.0744	0.0386	0.0000	0.0386	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0270	0.2812	0.1674	3.2000e-004		0.0137	0.0137		0.0126	0.0126	0.0000	28.4235	28.4235	9.1900e-003	0.0000	28.6533
Total	**0.0270**	**0.2812**	**0.1674**	**3.2000e-004**	**0.0744**	**0.0137**	**0.0881**	**0.0386**	**0.0126**	**0.0512**	**0.0000**	**28.4235**	**28.4235**	**9.1900e-003**	**0.0000**	**28.6533**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.1000e-004	3.8600e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0400e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.9253	0.9253	3.0000e-005	3.0000e-005	0.9344
Total	**4.7000e-004**	**3.1000e-004**	**3.8600e-003**	**1.0000e-005**	**1.0400e-003**	**1.0000e-005**	**1.0400e-003**	**2.8000e-004**	**1.0000e-005**	**2.8000e-004**	**0.0000**	**0.9253**	**0.9253**	**3.0000e-005**	**3.0000e-005**	**0.9344**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1923	0.0000	0.1923	0.1006	0.0000	0.1006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1087	1.1653	0.8713	1.8600e-003		0.0491	0.0491		0.0451	0.0451	0.0000	163.6038	163.6038	0.0529	0.0000	164.9266
Total	**0.1087**	**1.1653**	**0.8713**	**1.8600e-003**	**0.1923**	**0.0491**	**0.2414**	**0.1006**	**0.0451**	**0.1457**	**0.0000**	**163.6038**	**163.6038**	**0.0529**	**0.0000**	**164.9266**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8500e-003	1.2000e-003	0.0151	4.0000e-005	4.4100e-003	2.0000e-005	4.4300e-003	1.1700e-003	2.0000e-005	1.1900e-003	0.0000	3.6286	3.6286	1.2000e-004	1.1000e-004	3.6643
Total	**1.8500e-003**	**1.2000e-003**	**0.0151**	**4.0000e-005**	**4.4100e-003**	**2.0000e-005**	**4.4300e-003**	**1.1700e-003**	**2.0000e-005**	**1.1900e-003**	**0.0000**	**3.6286**	**3.6286**	**1.2000e-004**	**1.1000e-004**	**3.6643**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0866	0.0000	0.0866	0.0453	0.0000	0.0453	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1087	1.1653	0.8712	1.8600e-003		0.0491	0.0491		0.0451	0.0451	0.0000	163.6036	163.6036	0.0529	0.0000	164.9264
Total	**0.1087**	**1.1653**	**0.8712**	**1.8600e-003**	**0.0866**	**0.0491**	**0.1356**	**0.0453**	**0.0451**	**0.0904**	**0.0000**	**163.6036**	**163.6036**	**0.0529**	**0.0000**	**164.9264**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8500e-003	1.2000e-003	0.0151	4.0000e-005	4.0600e-003	2.0000e-005	4.0900e-003	1.0900e-003	2.0000e-005	1.1100e-003	0.0000	3.6286	3.6286	1.2000e-004	1.1000e-004	3.6643
Total	**1.8500e-003**	**1.2000e-003**	**0.0151**	**4.0000e-005**	**4.0600e-003**	**2.0000e-005**	**4.0900e-003**	**1.0900e-003**	**2.0000e-005**	**1.1100e-003**	**0.0000**	**3.6286**	**3.6286**	**1.2000e-004**	**1.1000e-004**	**3.6643**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0282	0.2577	0.2700	4.4000e-004		0.0134	0.0134		0.0126	0.0126	0.0000	38.2347	38.2347	9.1600e-003	0.0000	38.4637
Total	**0.0282**	**0.2577**	**0.2700**	**4.4000e-004**		**0.0134**	**0.0134**		**0.0126**	**0.0126**	**0.0000**	**38.2347**	**38.2347**	**9.1600e-003**	**0.0000**	**38.4637**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6900e-003	0.0455	0.0132	1.6000e-004	4.6400e-003	4.2000e-004	5.0600e-003	1.3400e-003	4.0000e-004	1.7400e-003	0.0000	15.2038	15.2038	4.0000e-004	2.2300e-003	15.8780
Worker	0.0157	0.0102	0.1286	3.3000e-004	0.0375	2.1000e-004	0.0377	9.9600e-003	1.9000e-004	0.0102	0.0000	30.8343	30.8343	1.0500e-003	9.3000e-004	31.1372
Total	**0.0174**	**0.0557**	**0.1418**	**4.9000e-004**	**0.0421**	**6.3000e-004**	**0.0427**	**0.0113**	**5.9000e-004**	**0.0119**	**0.0000**	**46.0381**	**46.0381**	**1.4500e-003**	**3.1600e-003**	**47.0151**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0282	0.2577	0.2700	4.4000e-004		0.0134	0.0134		0.0126	0.0126	0.0000	38.2346	38.2346	9.1600e-003	0.0000	38.4636
Total	**0.0282**	**0.2577**	**0.2700**	**4.4000e-004**		**0.0134**	**0.0134**		**0.0126**	**0.0126**	**0.0000**	**38.2346**	**38.2346**	**9.1600e-003**	**0.0000**	**38.4636**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6900e-003	0.0455	0.0132	1.6000e-004	4.3400e-003	4.2000e-004	4.7600e-003	1.2700e-003	4.0000e-004	1.6700e-003	0.0000	15.2038	15.2038	4.0000e-004	2.2300e-003	15.8780
Worker	0.0157	0.0102	0.1286	3.3000e-004	0.0345	2.1000e-004	0.0347	9.2400e-003	1.9000e-004	9.4400e-003	0.0000	30.8343	30.8343	1.0500e-003	9.3000e-004	31.1372
Total	**0.0174**	**0.0557**	**0.1418**	**4.9000e-004**	**0.0389**	**6.3000e-004**	**0.0395**	**0.0105**	**5.9000e-004**	**0.0111**	**0.0000**	**46.0381**	**46.0381**	**1.4500e-003**	**3.1600e-003**	**47.0151**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.1300e-003	0.3042	0.0917	1.1900e-003	0.0365	1.6200e-003	0.0382	0.0106	1.5500e-003	0.0121	0.0000	115.7328	115.7328	2.8500e-003	0.0170	120.8647
Worker	0.1152	0.0713	0.9365	2.5500e-003	0.2950	1.5800e-003	0.2966	0.0785	1.4500e-003	0.0799	0.0000	236.6741	236.6741	7.4900e-003	6.7600e-003	238.8771
Total	**0.1234**	**0.3754**	**1.0282**	**3.7400e-003**	**0.3316**	**3.2000e-003**	**0.3348**	**0.0890**	**3.0000e-003**	**0.0920**	**0.0000**	**352.4069**	**352.4069**	**0.0103**	**0.0237**	**359.7418**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.1300e-003	0.3042	0.0917	1.1900e-003	0.0342	1.6200e-003	0.0358	9.9900e-003	1.5500e-003	0.0115	0.0000	115.7328	115.7328	2.8500e-003	0.0170	120.8647
Worker	0.1152	0.0713	0.9365	2.5500e-003	0.2721	1.5800e-003	0.2737	0.0728	1.4500e-003	0.0743	0.0000	236.6741	236.6741	7.4900e-003	6.7600e-003	238.8771
Total	**0.1234**	**0.3754**	**1.0282**	**3.7400e-003**	**0.3063**	**3.2000e-003**	**0.3095**	**0.0828**	**3.0000e-003**	**0.0858**	**0.0000**	**352.4069**	**352.4069**	**0.0103**	**0.0237**	**359.7418**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.8400e-003	0.3004	0.0895	1.1800e-003	0.0368	1.6100e-003	0.0384	0.0106	1.5400e-003	0.0122	0.0000	114.4082	114.4082	2.8000e-003	0.0168	119.4917
Worker	0.1086	0.0639	0.8783	2.4800e-003	0.2973	1.5100e-003	0.2988	0.0791	1.3900e-003	0.0805	0.0000	232.5413	232.5413	6.8400e-003	6.3400e-003	234.6011
Total	**0.1164**	**0.3644**	**0.9678**	**3.6600e-003**	**0.3341**	**3.1200e-003**	**0.3372**	**0.0897**	**2.9300e-003**	**0.0926**	**0.0000**	**346.9495**	**346.9495**	**9.6400e-003**	**0.0232**	**354.0929**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.8400e-003	0.3004	0.0895	1.1800e-003	0.0345	1.6100e-003	0.0361	0.0101	1.5400e-003	0.0116	0.0000	114.4082	114.4082	2.8000e-003	0.0168	119.4917
Worker	0.1086	0.0639	0.8783	2.4800e-003	0.2742	1.5100e-003	0.2757	0.0734	1.3900e-003	0.0748	0.0000	232.5413	232.5413	6.8400e-003	6.3400e-003	234.6011
Total	**0.1164**	**0.3644**	**0.9678**	**3.6600e-003**	**0.3086**	**3.1200e-003**	**0.3118**	**0.0835**	**2.9300e-003**	**0.0864**	**0.0000**	**346.9495**	**346.9495**	**9.6400e-003**	**0.0232**	**354.0929**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0540	0.4926	0.6353	1.0600e-003		0.0208	0.0208		0.0196	0.0196	0.0000	91.6082	91.6082	0.0215	0.0000	92.1465
Total	**0.0540**	**0.4926**	**0.6353**	**1.0600e-003**		**0.0208**	**0.0208**		**0.0196**	**0.0196**	**0.0000**	**91.6082**	**91.6082**	**0.0215**	**0.0000**	**92.1465**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2800e-003	0.0888	0.0264	3.5000e-004	0.0111	4.8000e-004	0.0116	3.2100e-003	4.5000e-004	3.6600e-003	0.0000	33.7992	33.7992	8.3000e-004	4.9800e-003	35.3037
Worker	0.0307	0.0173	0.2477	7.2000e-004	0.0896	4.4000e-004	0.0901	0.0238	4.0000e-004	0.0242	0.0000	68.4217	68.4217	1.8700e-003	1.7900e-003	69.0009
Total	**0.0330**	**0.1061**	**0.2741**	**1.0700e-003**	**0.1007**	**9.2000e-004**	**0.1017**	**0.0271**	**8.5000e-004**	**0.0279**	**0.0000**	**102.2209**	**102.2209**	**2.7000e-003**	**6.7700e-003**	**104.3046**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0540	0.4926	0.6353	1.0600e-003		0.0208	0.0208		0.0196	0.0196	0.0000	91.6081	91.6081	0.0215	0.0000	92.1464
Total	**0.0540**	**0.4926**	**0.6353**	**1.0600e-003**		**0.0208**	**0.0208**		**0.0196**	**0.0196**	**0.0000**	**91.6081**	**91.6081**	**0.0215**	**0.0000**	**92.1464**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2800e-003	0.0888	0.0264	3.5000e-004	0.0104	4.8000e-004	0.0109	3.0300e-003	4.5000e-004	3.4900e-003	0.0000	33.7992	33.7992	8.3000e-004	4.9800e-003	35.3037
Worker	0.0307	0.0173	0.2477	7.2000e-004	0.0827	4.4000e-004	0.0831	0.0221	4.0000e-004	0.0225	0.0000	68.4217	68.4217	1.8700e-003	1.7900e-003	69.0009
Total	**0.0330**	**0.1061**	**0.2741**	**1.0700e-003**	**0.0931**	**9.2000e-004**	**0.0940**	**0.0252**	**8.5000e-004**	**0.0260**	**0.0000**	**102.2209**	**102.2209**	**2.7000e-003**	**6.7700e-003**	**104.3046**

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0156	0.1459	0.2478	3.9000e-004		7.1100e-003	7.1100e-003		6.5500e-003	6.5500e-003	0.0000	34.0327	34.0327	0.0110	0.0000	34.3079
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0156**	**0.1459**	**0.2478**	**3.9000e-004**		**7.1100e-003**	**7.1100e-003**		**6.5500e-003**	**6.5500e-003**	**0.0000**	**34.0327**	**34.0327**	**0.0110**	**0.0000**	**34.3079**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	3.6000e-004	5.1800e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.4295	1.4295	4.0000e-005	4.0000e-005	1.4416
Total	**6.4000e-004**	**3.6000e-004**	**5.1800e-003**	**2.0000e-005**	**1.8700e-003**	**1.0000e-005**	**1.8800e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.4295**	**1.4295**	**4.0000e-005**	**4.0000e-005**	**1.4416**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0156	0.1459	0.2478	3.9000e-004		7.1100e-003	7.1100e-003		6.5500e-003	6.5500e-003	0.0000	34.0327	34.0327	0.0110	0.0000	34.3079
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0156**	**0.1459**	**0.2478**	**3.9000e-004**		**7.1100e-003**	**7.1100e-003**		**6.5500e-003**	**6.5500e-003**	**0.0000**	**34.0327**	**34.0327**	**0.0110**	**0.0000**	**34.3079**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	3.6000e-004	5.1800e-003	2.0000e-005	1.7300e-003	1.0000e-005	1.7400e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.4295	1.4295	4.0000e-005	4.0000e-005	1.4416
Total	**6.4000e-004**	**3.6000e-004**	**5.1800e-003**	**2.0000e-005**	**1.7300e-003**	**1.0000e-005**	**1.7400e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.4295**	**1.4295**	**4.0000e-005**	**4.0000e-005**	**1.4416**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6941					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0195	0.0308	5.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	4.3405	4.3405	2.4000e-004	0.0000	4.3465
Total	**1.6970**	**0.0195**	**0.0308**	**5.0000e-005**		**8.8000e-004**	**8.8000e-004**		**8.8000e-004**	**8.8000e-004**	**0.0000**	**4.3405**	**4.3405**	**2.4000e-004**	**0.0000**	**4.3465**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6500e-003	1.4900e-003	0.0214	6.0000e-005	7.7400e-003	4.0000e-005	7.7800e-003	2.0600e-003	3.0000e-005	2.0900e-003	0.0000	5.9085	5.9085	1.6000e-004	1.5000e-004	5.9585
Total	**2.6500e-003**	**1.4900e-003**	**0.0214**	**6.0000e-005**	**7.7400e-003**	**4.0000e-005**	**7.7800e-003**	**2.0600e-003**	**3.0000e-005**	**2.0900e-003**	**0.0000**	**5.9085**	**5.9085**	**1.6000e-004**	**1.5000e-004**	**5.9585**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6941					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0195	0.0308	5.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	4.3405	4.3405	2.4000e-004	0.0000	4.3465
Total	**1.6970**	**0.0195**	**0.0308**	**5.0000e-005**		**8.8000e-004**	**8.8000e-004**		**8.8000e-004**	**8.8000e-004**	**0.0000**	**4.3405**	**4.3405**	**2.4000e-004**	**0.0000**	**4.3465**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6500e-003	1.4900e-003	0.0214	6.0000e-005	7.1400e-003	4.0000e-005	7.1800e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	5.9085	5.9085	1.6000e-004	1.5000e-004	5.9585
Total	**2.6500e-003**	**1.4900e-003**	**0.0214**	**6.0000e-005**	**7.1400e-003**	**4.0000e-005**	**7.1800e-003**	**1.9100e-003**	**3.0000e-005**	**1.9500e-003**	**0.0000**	**5.9085**	**5.9085**	**1.6000e-004**	**1.5000e-004**	**5.9585**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1741	1.2277	8.9936	0.0166	1.7920	0.0136	1.8057	0.4790	0.0127	0.4917	0.0000	1,586.2106	1,586.2106	0.1288	0.0875	1,615.5101
Unmitigated	1.1741	1.2277	8.9936	0.0166	1.7920	0.0136	1.8057	0.4790	0.0127	0.4917	0.0000	1,586.2106	1,586.2106	0.1288	0.0875	1,615.5101

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,099.20	1,099.20	1099.20	1,684,778	1,684,778
Condo/Townhouse	1,210.68	1,210.68	1210.68	1,841,192	1,841,192
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	911.04	911.04	911.04	1,310,549	1,310,549
Total	3,220.92	3,220.92	3,220.92	4,836,520	4,836,520

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	5.00	4.00	3.38	46.50	12.50	41.00	100	0	0
Condo/Townhouse	5.00	4.00	3.30	46.50	12.50	41.00	100	0	0
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	5.00	4.00	3.30	8.50	72.50	19.00	100	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Condo/Townhouse	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Health Club	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
High Turnover (Sit Down Restaurant)	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	401.8642	401.8642	0.0259	4.3200e-003	403.7990
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	401.8642	401.8642	0.0259	4.3200e-003	403.7990
NaturalGas Mitigated	7.5900e-003	0.0690	0.0580	4.1000e-004		5.2500e-003	5.2500e-003		5.2500e-003	5.2500e-003	0.0000	75.1412	75.1412	1.4400e-003	1.3800e-003	75.5877
NaturalGas Unmitigated	7.5900e-003	0.0690	0.0580	4.1000e-004		5.2500e-003	5.2500e-003		5.2500e-003	5.2500e-003	0.0000	75.1412	75.1412	1.4400e-003	1.3800e-003	75.5877

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	817892	4.4100e-003	0.0401	0.0337	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.6458	43.6458	8.4000e-004	8.0000e-004	43.9052
High Turnover (Sit Down Restaurant)	590200	3.1800e-003	0.0289	0.0243	1.7000e-004		2.2000e-003	2.2000e-003		2.2000e-003	2.2000e-003	0.0000	31.4953	31.4953	6.0000e-004	5.8000e-004	31.6825
Total		**7.5900e-003**	**0.0690**	**0.0580**	**4.1000e-004**		**5.2500e-003**	**5.2500e-003**		**5.2500e-003**	**5.2500e-003**	**0.0000**	**75.1412**	**75.1412**	**1.4400e-003**	**1.3800e-003**	**75.5877**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	817892	4.4100e-003	0.0401	0.0337	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.6458	43.6458	8.4000e-004	8.0000e-004	43.9052
High Turnover (Sit Down Restaurant)	590200	3.1800e-003	0.0289	0.0243	1.7000e-004		2.2000e-003	2.2000e-003		2.2000e-003	2.2000e-003	0.0000	31.4953	31.4953	6.0000e-004	5.8000e-004	31.6825
Total		**7.5900e-003**	**0.0690**	**0.0580**	**4.1000e-004**		**5.2500e-003**	**5.2500e-003**		**5.2500e-003**	**5.2500e-003**	**0.0000**	**75.1412**	**75.1412**	**1.4400e-003**	**1.3800e-003**	**75.5877**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.59722e+006	134.8269	8.6900e-003	1.4500e-003	135.4761
Condo/Townhouse	2.55749e+006	215.8864	0.0139	2.3200e-003	216.9258
Health Club	315506	26.6330	1.7200e-003	2.9000e-004	26.7612
High Turnover (Sit Down Restaurant)	290450	24.5179	1.5800e-003	2.6000e-004	24.6360
Total		**401.8642**	**0.0259**	**4.3200e-003**	**403.7991**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.59722e+006	134.8269	8.6900e-003	1.4500e-003	135.4761
Condo/Townhouse	2.55749e+006	215.8864	0.0139	2.3200e-003	216.9258
Health Club	315506	26.6330	1.7200e-003	2.9000e-004	26.7612
High Turnover (Sit Down Restaurant)	290450	24.5179	1.5800e-003	2.6000e-004	24.6360
Total		**401.8642**	**0.0259**	**4.3200e-003**	**403.7991**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.0036	0.0495	4.2966	2.3000e-004		0.0238	0.0238		0.0238	0.0238	0.0000	7.0251	7.0251	6.7300e-003	0.0000	7.1933
Unmitigated	2.0036	0.0495	4.2966	2.3000e-004		0.0238	0.0238		0.0238	0.0238	0.0000	7.0251	7.0251	6.7300e-003	0.0000	7.1933

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1694					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7051					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1290	0.0495	4.2966	2.3000e-004		0.0238	0.0238		0.0238	0.0238	0.0000	7.0251	7.0251	6.7300e-003	0.0000	7.1933
Total	**2.0036**	**0.0495**	**4.2966**	**2.3000e-004**		**0.0238**	**0.0238**		**0.0238**	**0.0238**	**0.0000**	**7.0251**	**7.0251**	**6.7300e-003**	**0.0000**	**7.1933**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1694					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7051					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1290	0.0495	4.2966	2.3000e-004		0.0238	0.0238		0.0238	0.0238	0.0000	7.0251	7.0251	6.7300e-003	0.0000	7.1933
Total	**2.0036**	**0.0495**	**4.2966**	**2.3000e-004**		**0.0238**	**0.0238**		**0.0238**	**0.0238**	**0.0000**	**7.0251**	**7.0251**	**6.7300e-003**	**0.0000**	**7.1933**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	28.6711	0.0380	0.0235	36.6100
Unmitigated	28.6711	0.0380	0.0235	36.6100

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	15.637 / 9.85809	15.0218	0.0197	0.0121	19.1288
Condo/Townhouse	11.5323 / 7.27034	11.0786	0.0145	8.9500e-003	14.1075
Health Club	0.86349 / 0.529236	0.8251	1.0900e-003	6.7000e-004	1.0518
High Turnover (Sit Down Restaurant)	2.20062 / 0.140465	1.7457	2.7400e-003	1.7000e-003	2.3219
Total		**28.6711**	**0.0380**	**0.0235**	**36.6100**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	15.637 / 9.85809	15.0218	0.0197	0.0121	19.1288
Condo/Townhouse	11.5323 / 7.27034	11.0786	0.0145	8.9500e-003	14.1075
Health Club	0.86349 / 0.529236	0.8251	1.0900e-003	6.7000e-004	1.0518
High Turnover (Sit Down Restaurant)	2.20062 / 0.140465	1.7457	2.7400e-003	1.7000e-003	2.3219
Total		**28.6711**	**0.0380**	**0.0235**	**36.6100**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	73.3447	4.3346	0.0000	181.7084
Unmitigated	73.3447	4.3346	0.0000	181.7084

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	110.4	22.4102	1.3244	0.0000	55.5203
Condo/Townhouse	81.42	16.5275	0.9768	0.0000	40.9462
Health Club	83.22	16.8929	0.9983	0.0000	41.8515
High Turnover (Sit Down Restaurant)	86.28	17.5141	1.0351	0.0000	43.3903
Total		**73.3447**	**4.3346**	**0.0000**	**181.7084**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	110.4	22.4102	1.3244	0.0000	55.5203
Condo/Townhouse	81.42	16.5275	0.9768	0.0000	40.9462
Health Club	83.22	16.8929	0.9983	0.0000	41.8515
High Turnover (Sit Down Restaurant)	86.28	17.5141	1.0351	0.0000	43.3903
Total		**73.3447**	**4.3346**	**0.0000**	**181.7084**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Residences at Capital Center

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	14.60	1000sqft	0.34	14,600.00	0
High Turnover (Sit Down Restaurant)	5.00	1000sqft	0.72	5,000.00	0
Apartments Mid Rise	240.00	Dwelling Unit	8.71	240,000.00	641
Condo/Townhouse	177.00	Dwelling Unit	9.93	177,000.00	473

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2026
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	186.1	**CH4 Intensity (lb/MWhr)**	0.012	**N2O Intensity (lb/MWhr)**	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SMUD Intentisty Factor update accoding to 2030 Carbon Neutrality goal

Land Use - Project specific acreage

Construction Phase - 36-month construction schedule

Grading - 22-acres to be graded

Architectural Coating - SMAQMD Rule 442

Vehicle Trips - Trip adjustments

Area Coating - SMAQMD Rule 442

Energy Use - No residential natural gas use. NG use for pool/spa and 2 outdoor fire pits- see supplemental calcs.

Construction Off-road Equipment Mitigation - SMAQMD Construciton BMPs

ITEM 11.1

ATTACHMENT 1

Residences at Capital Center - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	17.00
tblConstructionPhase	NumDays	30.00	60.00
tblConstructionPhase	NumDays	300.00	634.00
tblConstructionPhase	NumDays	20.00	34.00
tblConstructionPhase	NumDays	20.00	34.00
tblEnergyUse	NT24E	3,054.10	3,842.08
tblEnergyUse	NT24E	3,795.01	8,621.49
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	NT24NG	12.42	56.02
tblEnergyUse	T24E	98.18	2,071.56
tblEnergyUse	T24E	80.14	4,826.48
tblEnergyUse	T24E	3.05	9.84
tblEnergyUse	T24E	7.86	25.18
tblEnergyUse	T24NG	6,729.23	0.00
tblEnergyUse	T24NG	16,185.01	0.00
tblEnergyUse	T24NG	23.15	0.00
tblEnergyUse	T24NG	59.07	0.00
tblGrading	AcresOfGrading	180.00	22.00
tblGrading	AcresOfGrading	25.50	22.00
tblLandUse	LotAcreage	0.11	0.72

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	6.32	8.71
tblLandUse	LotAcreage	11.06	9.93
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.012
tblProjectCharacteristics	CO2IntensityFactor	357.98	186.1
tblProjectCharacteristics	N2OIntensityFactor	0.004	0.002
tblVehicleTrips	CC_TL	5.00	0.00
tblVehicleTrips	CC_TL	5.00	4.00
tblVehicleTrips	CC_TTP	64.10	0.00
tblVehicleTrips	CNW_TL	6.50	0.00
tblVehicleTrips	CNW_TL	6.50	3.30
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	10.00	0.00
tblVehicleTrips	CW_TL	10.00	5.00
tblVehicleTrips	CW_TTP	16.90	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	HO_TL	6.50	3.38
tblVehicleTrips	HO_TL	6.50	3.30
tblVehicleTrips	HS_TL	5.00	4.00
tblVehicleTrips	HS_TL	5.00	4.00
tblVehicleTrips	HW_TL	10.00	5.00
tblVehicleTrips	HW_TL	10.00	5.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	52.00	0.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	ST_TR	4.91	4.58
tblVehicleTrips	ST_TR	8.14	6.84
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	122.40	182.21
tblVehicleTrips	SU_TR	4.09	4.58
tblVehicleTrips	SU_TR	6.28	6.84
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	142.64	182.21
tblVehicleTrips	WD_TR	5.44	4.58
tblVehicleTrips	WD_TR	7.32	6.84
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	112.18	182.21

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6973	38.8801	29.6330	0.0635	19.5756	1.6357	21.1889	10.1152	1.5049	11.5995	0.0000	6,157.5609	6,157.5609	1.9486	0.2071	6,207.4001
2023	2.6782	17.1078	25.3571	0.0576	2.6398	0.7243	3.3640	0.7068	0.6815	1.3882	0.0000	5,735.4037	5,735.4037	0.6924	0.1978	5,811.6632
2024	2.5056	16.0679	24.6543	0.0567	2.6397	0.6371	3.2768	0.7067	0.5992	1.3060	0.0000	5,661.7554	5,661.7554	0.6824	0.1916	5,735.9240
2025	100.0066	15.0039	24.0365	0.0558	2.6397	0.5506	3.1903	0.7067	0.5179	1.2246	0.0000	5,590.6919	5,590.6919	0.7161	0.1858	5,662.8874
Maximum	**100.0066**	**38.8801**	**29.6330**	**0.0635**	**19.5756**	**1.6357**	**21.1889**	**10.1152**	**1.5049**	**11.5995**	**0.0000**	**6,157.5609**	**6,157.5609**	**1.9486**	**0.2071**	**6,207.4001**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6973	38.8801	29.6330	0.0635	8.8736	1.6357	10.4869	4.5692	1.5049	6.0534	0.0000	6,157.5609	6,157.5609	1.9486	0.2071	6,207.4001
2023	2.6782	17.1078	25.3571	0.0576	2.4374	0.7243	3.1616	0.6571	0.6815	1.3385	0.0000	5,735.4037	5,735.4037	0.6924	0.1978	5,811.6632
2024	2.5056	16.0679	24.6543	0.0567	2.4373	0.6371	3.0744	0.6571	0.5992	1.2563	0.0000	5,661.7554	5,661.7554	0.6824	0.1916	5,735.9240
2025	100.0066	15.0039	24.0365	0.0558	2.4373	0.5506	2.9879	0.6570	0.5179	1.1749	0.0000	5,590.6919	5,590.6919	0.7161	0.1858	5,662.8874
Maximum	**100.0066**	**38.8801**	**29.6330**	**0.0635**	**8.8736**	**1.6357**	**10.4869**	**4.5692**	**1.5049**	**6.0534**	**0.0000**	**6,157.5609**	**6,157.5609**	**1.9486**	**0.2071**	**6,207.4001**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**41.13**	**0.00**	**36.46**	**46.55**	**0.00**	**36.70**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339
Energy	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543
Mobile	8.3089	6.2415	51.4784	0.0979	10.1951	0.0750	10.2701	2.7175	0.0699	2.7874		10,303.6476	10,303.6476	0.7271	0.5091	10,473.5500
Total	**19.6541**	**7.0157**	**86.1685**	**0.1020**	**10.1951**	**0.2944**	**10.4896**	**2.7175**	**0.2894**	**3.0069**	**0.0000**	**10,819.4554**	**10,819.4554**	**0.7952**	**0.5175**	**10,993.5382**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339
Energy	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543
Mobile	8.3089	6.2415	51.4784	0.0979	10.1951	0.0750	10.2701	2.7175	0.0699	2.7874		10,303.6476	10,303.6476	0.7271	0.5091	10,473.5500
Total	**19.6541**	**7.0157**	**86.1685**	**0.1020**	**10.1951**	**0.2944**	**10.4896**	**2.7175**	**0.2894**	**3.0069**	**0.0000**	**10,819.4554**	**10,819.4554**	**0.7952**	**0.5175**	**10,993.5382**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2022	8/23/2022	5	17	
2	Grading	Grading	8/24/2022	11/15/2022	5	60	
3	Building Construction	Building Construction	11/16/2022	4/21/2025	5	634	
4	Paving	Paving	4/22/2025	6/6/2025	5	34	
5	Architectural Coating	Architectural Coating	6/9/2025	7/24/2025	5	34	

Acres of Grading (Site Preparation Phase): 22

Acres of Grading (Grading Phase): 22

Acres of Paving: 0

Residential Indoor: 844,425; Residential Outdoor: 281,475; Non-Residential Indoor: 32,775; Non-Residential Outdoor: 10,925; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	309.00	48.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	62.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.4387	0.0000	19.4387	10.0789	0.0000	10.0789			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.4387**	**1.6126**	**21.0512**	**10.0789**	**1.4836**	**11.5624**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0652	0.0329	0.5324	1.2900e-003	0.1369	7.4000e-004	0.1377	0.0363	6.8000e-004	0.0370		131.5353	131.5353	3.9000e-003	3.4000e-003	132.6458
Total	**0.0652**	**0.0329**	**0.5324**	**1.2900e-003**	**0.1369**	**7.4000e-004**	**0.1377**	**0.0363**	**6.8000e-004**	**0.0370**		**131.5353**	**131.5353**	**3.9000e-003**	**3.4000e-003**	**132.6458**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7474	0.0000	8.7474	4.5355	0.0000	4.5355			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**8.7474**	**1.6126**	**10.3600**	**4.5355**	**1.4836**	**6.0191**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0652	0.0329	0.5324	1.2900e-003	0.1262	7.4000e-004	0.1270	0.0337	6.8000e-004	0.0344		131.5353	131.5353	3.9000e-003	3.4000e-003	132.6458
Total	**0.0652**	**0.0329**	**0.5324**	**1.2900e-003**	**0.1262**	**7.4000e-004**	**0.1270**	**0.0337**	**6.8000e-004**	**0.0344**		**131.5353**	**131.5353**	**3.9000e-003**	**3.4000e-003**	**132.6458**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4109	0.0000	6.4109	3.3522	0.0000	3.3522			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**6.4109**	**1.6349**	**8.0458**	**3.3522**	**1.5041**	**4.8563**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0725	0.0366	0.5915	1.4400e-003	0.1521	8.3000e-004	0.1530	0.0404	7.6000e-004	0.0411		146.1503	146.1503	4.3400e-003	3.7800e-003	147.3843
Total	**0.0725**	**0.0366**	**0.5915**	**1.4400e-003**	**0.1521**	**8.3000e-004**	**0.1530**	**0.0404**	**7.6000e-004**	**0.0411**		**146.1503**	**146.1503**	**4.3400e-003**	**3.7800e-003**	**147.3843**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8849	0.0000	2.8849	1.5085	0.0000	1.5085			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**2.8849**	**1.6349**	**4.5198**	**1.5085**	**1.5041**	**3.0126**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0725	0.0366	0.5915	1.4400e-003	0.1402	8.3000e-004	0.1411	0.0374	7.6000e-004	0.0382		146.1503	146.1503	4.3400e-003	3.7800e-003	147.3843
Total	**0.0725**	**0.0366**	**0.5915**	**1.4400e-003**	**0.1402**	**8.3000e-004**	**0.1411**	**0.0374**	**7.6000e-004**	**0.0382**		**146.1503**	**146.1503**	**4.3400e-003**	**3.7800e-003**	**147.3843**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1039	2.6146	0.7872	9.4800e-003	0.2892	0.0254	0.3146	0.0833	0.0243	0.1075		1,015.7719	1,015.7719	0.0266	0.1488	1,060.7641
Worker	1.1196	0.5654	9.1390	0.0222	2.3506	0.0128	2.3633	0.6235	0.0118	0.6353		2,258.0227	2,258.0227	0.0670	0.0584	2,277.0870
Total	**1.2235**	**3.1800**	**9.9262**	**0.0317**	**2.6398**	**0.0382**	**2.6779**	**0.7068**	**0.0360**	**0.7428**		**3,273.7946**	**3,273.7946**	**0.0936**	**0.2071**	**3,337.8510**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1039	2.6146	0.7872	9.4800e-003	0.2707	0.0254	0.2961	0.0787	0.0243	0.1030		1,015.7719	1,015.7719	0.0266	0.1488	1,060.7641
Worker	1.1196	0.5654	9.1390	0.0222	2.1667	0.0128	2.1795	0.5784	0.0118	0.5901		2,258.0227	2,258.0227	0.0670	0.0584	2,277.0870
Total	**1.2235**	**3.1800**	**9.9262**	**0.0317**	**2.4374**	**0.0382**	**2.4755**	**0.6571**	**0.0360**	**0.6931**		**3,273.7946**	**3,273.7946**	**0.0936**	**0.2071**	**3,337.8510**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0642	2.2226	0.6919	9.1500e-003	0.2892	0.0124	0.3016	0.0832	0.0119	0.0951		981.0442	981.0442	0.0242	0.1438	1,024.5049
Worker	1.0412	0.5003	8.4211	0.0215	2.3506	0.0121	2.3627	0.6235	0.0112	0.6347		2,199.1495	2,199.1495	0.0604	0.0540	2,216.7522
Total	**1.1054**	**2.7229**	**9.1131**	**0.0306**	**2.6398**	**0.0245**	**2.6643**	**0.7068**	**0.0230**	**0.7298**		**3,180.1937**	**3,180.1937**	**0.0846**	**0.1978**	**3,241.2571**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0642	2.2226	0.6919	9.1500e-003	0.2706	0.0124	0.2830	0.0787	0.0119	0.0906		981.0442	981.0442	0.0242	0.1438	1,024.5049
Worker	1.0412	0.5003	8.4211	0.0215	2.1667	0.0121	2.1788	0.5784	0.0112	0.5895		2,199.1495	2,199.1495	0.0604	0.0540	2,216.7522
Total	**1.1054**	**2.7229**	**9.1131**	**0.0306**	**2.4374**	**0.0245**	**2.4619**	**0.6571**	**0.0230**	**0.6801**		**3,180.1937**	**3,180.1937**	**0.0846**	**0.1978**	**3,241.2571**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0614	2.1785	0.6702	8.9700e-003	0.2892	0.0122	0.3014	0.0832	0.0117	0.0949		962.3604	962.3604	0.0236	0.1414	1,005.0858
Worker	0.9726	0.4457	7.8173	0.0208	2.3506	0.0115	2.3621	0.6235	0.0106	0.6341		2,143.6961	2,143.6961	0.0545	0.0502	2,160.0306
Total	**1.0340**	**2.6241**	**8.4875**	**0.0298**	**2.6397**	**0.0238**	**2.6635**	**0.7067**	**0.0223**	**0.7291**		**3,106.0565**	**3,106.0565**	**0.0781**	**0.1916**	**3,165.1163**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0614	2.1785	0.6702	8.9700e-003	0.2706	0.0122	0.2828	0.0787	0.0117	0.0904		962.3604	962.3604	0.0236	0.1414	1,005.0858
Worker	0.9726	0.4457	7.8173	0.0208	2.1667	0.0115	2.1783	0.5784	0.0106	0.5890		2,143.6961	2,143.6961	0.0545	0.0502	2,160.0306
Total	**1.0340**	**2.6241**	**8.4875**	**0.0298**	**2.4373**	**0.0238**	**2.4611**	**0.6571**	**0.0223**	**0.6794**		**3,106.0565**	**3,106.0565**	**0.0781**	**0.1916**	**3,165.1163**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0592	2.1341	0.6545	8.7800e-003	0.2891	0.0120	0.3011	0.0832	0.0115	0.0947		942.8461	942.8461	0.0231	0.1388	984.7831
Worker	0.9131	0.4001	7.2974	0.0201	2.3506	0.0110	2.3616	0.6235	0.0102	0.6337		2,091.3715	2,091.3715	0.0494	0.0470	2,106.6062
Total	**0.9723**	**2.5342**	**7.9519**	**0.0289**	**2.6397**	**0.0230**	**2.6627**	**0.7067**	**0.0216**	**0.7283**		**3,034.2176**	**3,034.2176**	**0.0724**	**0.1858**	**3,091.3893**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0592	2.1341	0.6545	8.7800e-003	0.2706	0.0120	0.2826	0.0787	0.0115	0.0901		942.8461	942.8461	0.0231	0.1388	984.7831
Worker	0.9131	0.4001	7.2974	0.0201	2.1667	0.0110	2.1778	0.5784	0.0102	0.5885		2,091.3715	2,091.3715	0.0494	0.0470	2,106.6062
Total	**0.9723**	**2.5342**	**7.9519**	**0.0289**	**2.4373**	**0.0230**	**2.4603**	**0.6570**	**0.0216**	**0.6787**		**3,034.2176**	**3,034.2176**	**0.0724**	**0.1858**	**3,091.3893**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0443	0.0194	0.3542	9.7000e-004	0.1141	5.4000e-004	0.1146	0.0303	4.9000e-004	0.0308		101.5229	101.5229	2.4000e-003	2.2800e-003	102.2624
Total	**0.0443**	**0.0194**	**0.3542**	**9.7000e-004**	**0.1141**	**5.4000e-004**	**0.1146**	**0.0303**	**4.9000e-004**	**0.0308**		**101.5229**	**101.5229**	**2.4000e-003**	**2.2800e-003**	**102.2624**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0443	0.0194	0.3542	9.7000e-004	0.1052	5.4000e-004	0.1057	0.0281	4.9000e-004	0.0286		101.5229	101.5229	2.4000e-003	2.2800e-003	102.2624
Total	**0.0443**	**0.0194**	**0.3542**	**9.7000e-004**	**0.1052**	**5.4000e-004**	**0.1057**	**0.0281**	**4.9000e-004**	**0.0286**		**101.5229**	**101.5229**	**2.4000e-003**	**2.2800e-003**	**102.2624**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	99.6525					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**99.8234**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1832	0.0803	1.4642	4.0300e-003	0.4716	2.2100e-003	0.4739	0.1251	2.0400e-003	0.1271		419.6279	419.6279	9.9000e-003	9.4300e-003	422.6847
Total	**0.1832**	**0.0803**	**1.4642**	**4.0300e-003**	**0.4716**	**2.2100e-003**	**0.4739**	**0.1251**	**2.0400e-003**	**0.1271**		**419.6279**	**419.6279**	**9.9000e-003**	**9.4300e-003**	**422.6847**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	99.6525					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**99.8234**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1832	0.0803	1.4642	4.0300e-003	0.4348	2.2100e-003	0.4370	0.1161	2.0400e-003	0.1181		419.6279	419.6279	9.9000e-003	9.4300e-003	422.6847
Total	**0.1832**	**0.0803**	**1.4642**	**4.0300e-003**	**0.4348**	**2.2100e-003**	**0.4370**	**0.1161**	**2.0400e-003**	**0.1181**		**419.6279**	**419.6279**	**9.9000e-003**	**9.4300e-003**	**422.6847**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.3089	6.2415	51.4784	0.0979	10.1951	0.0750	10.2701	2.7175	0.0699	2.7874		10,303.6476	10,303.6476	0.7271	0.5091	10,473.5500
Unmitigated	8.3089	6.2415	51.4784	0.0979	10.1951	0.0750	10.2701	2.7175	0.0699	2.7874		10,303.6476	10,303.6476	0.7271	0.5091	10,473.5500

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,099.20	1,099.20	1099.20	1,684,778	1,684,778
Condo/Townhouse	1,210.68	1,210.68	1210.68	1,841,192	1,841,192
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	911.04	911.04	911.04	1,310,549	1,310,549
Total	3,220.92	3,220.92	3,220.92	4,836,520	4,836,520

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	5.00	4.00	3.38	46.50	12.50	41.00	100	0	0
Condo/Townhouse	5.00	4.00	3.30	46.50	12.50	41.00	100	0	0
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High Turnover (Sit Down	5.00	4.00	3.30	8.50	72.50	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Condo/Townhouse	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Health Club	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
High Turnover (Sit Down Restaurant)	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543
NaturalGas Unmitigated	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	2240.8	0.0242	0.2197	0.1845	1.3200e-003		0.0167	0.0167		0.0167	0.0167		263.6235	263.6235	5.0500e-003	4.8300e-003	265.1901
High Turnover (Sit Down Restaurant)	1616.99	0.0174	0.1585	0.1332	9.5000e-004		0.0121	0.0121		0.0121	0.0121		190.2337	190.2337	3.6500e-003	3.4900e-003	191.3642
Total		**0.0416**	**0.3782**	**0.3177**	**2.2700e-003**		**0.0288**	**0.0288**		**0.0288**	**0.0288**		**453.8572**	**453.8572**	**8.7000e-003**	**8.3200e-003**	**456.5543**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	2.2408	0.0242	0.2197	0.1845	1.3200e-003		0.0167	0.0167		0.0167	0.0167		263.6235	263.6235	5.0500e-003	4.8300e-003	265.1901
High Turnover (Sit Down Restaurant)	1.61699	0.0174	0.1585	0.1332	9.5000e-004		0.0121	0.0121		0.0121	0.0121		190.2337	190.2337	3.6500e-003	3.4900e-003	191.3642
Total		**0.0416**	**0.3782**	**0.3177**	**2.2700e-003**		**0.0288**	**0.0288**		**0.0288**	**0.0288**		**453.8572**	**453.8572**	**8.7000e-003**	**8.3200e-003**	**456.5543**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339
Unmitigated	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9283					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.3432					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0321	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907		61.9506	61.9506	0.0593		63.4339
Total	**11.3037**	**0.3959**	**34.3724**	**1.8200e-003**		**0.1907**	**0.1907**		**0.1907**	**0.1907**	**0.0000**	**61.9506**	**61.9506**	**0.0593**	**0.0000**	**63.4339**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9283					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.3432					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0321	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907		61.9506	61.9506	0.0593		63.4339
Total	**11.3037**	**0.3959**	**34.3724**	**1.8200e-003**		**0.1907**	**0.1907**		**0.1907**	**0.1907**	**0.0000**	**61.9506**	**61.9506**	**0.0593**	**0.0000**	**63.4339**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Residences at Capital Center

Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	14.60	1000sqft	0.34	14,600.00	0
High Turnover (Sit Down Restaurant)	5.00	1000sqft	0.72	5,000.00	0
Apartments Mid Rise	240.00	Dwelling Unit	8.71	240,000.00	641
Condo/Townhouse	177.00	Dwelling Unit	9.93	177,000.00	473

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2026
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	186.1	**CH4 Intensity (lb/MWhr)**	0.012	**N2O Intensity (lb/MWhr)**	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SMUD Intentisty Factor update accoding to 2030 Carbon Neutrality goal

Land Use - Project specific acreage

Construction Phase - 36-month construction schedule

Grading - 22-acres to be graded

Architectural Coating - SMAQMD Rule 442

Vehicle Trips - Trip adjustments

Area Coating - SMAQMD Rule 442

Energy Use - No residential natural gas use. NG use for pool/spa and 2 outdoor fire pits- see supplemental calcs.

Construction Off-road Equipment Mitigation - SMAQMD Construciton BMPs

Residences at Capital Center - Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	17.00
tblConstructionPhase	NumDays	30.00	60.00
tblConstructionPhase	NumDays	300.00	634.00
tblConstructionPhase	NumDays	20.00	34.00
tblConstructionPhase	NumDays	20.00	34.00
tblEnergyUse	NT24E	3,054.10	3,842.08
tblEnergyUse	NT24E	3,795.01	8,621.49
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	NT24NG	12.42	56.02
tblEnergyUse	T24E	98.18	2,071.56
tblEnergyUse	T24E	80.14	4,826.48
tblEnergyUse	T24E	3.05	9.84
tblEnergyUse	T24E	7.86	25.18
tblEnergyUse	T24NG	6,729.23	0.00
tblEnergyUse	T24NG	16,185.01	0.00
tblEnergyUse	T24NG	23.15	0.00
tblEnergyUse	T24NG	59.07	0.00
tblGrading	AcresOfGrading	180.00	22.00
tblGrading	AcresOfGrading	25.50	22.00
tblLandUse	LotAcreage	0.11	0.72

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	6.32	8.71
tblLandUse	LotAcreage	11.06	9.93
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.012
tblProjectCharacteristics	CO2IntensityFactor	357.98	186.1
tblProjectCharacteristics	N2OIntensityFactor	0.004	0.002
tblVehicleTrips	CC_TL	5.00	0.00
tblVehicleTrips	CC_TL	5.00	4.00
tblVehicleTrips	CC_TTP	64.10	0.00
tblVehicleTrips	CNW_TL	6.50	0.00
tblVehicleTrips	CNW_TL	6.50	3.30
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	10.00	0.00
tblVehicleTrips	CW_TL	10.00	5.00
tblVehicleTrips	CW_TTP	16.90	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	HO_TL	6.50	3.38
tblVehicleTrips	HO_TL	6.50	3.30
tblVehicleTrips	HS_TL	5.00	4.00
tblVehicleTrips	HS_TL	5.00	4.00
tblVehicleTrips	HW_TL	10.00	5.00
tblVehicleTrips	HW_TL	10.00	5.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	52.00	0.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	ST_TR	4.91	4.58
tblVehicleTrips	ST_TR	8.14	6.84
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	122.40	182.21
tblVehicleTrips	SU_TR	4.09	4.58
tblVehicleTrips	SU_TR	6.28	6.84
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	142.64	182.21
tblVehicleTrips	WD_TR	5.44	4.58
tblVehicleTrips	WD_TR	7.32	6.84
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	112.18	182.21

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6889	38.8884	29.5539	0.0634	19.5756	1.6357	21.1889	10.1152	1.5049	11.5995	0.0000	6,141.3666	6,141.3666	1.9492	0.2160	6,191.3878
2023	2.5570	17.3875	24.3017	0.0552	2.6398	0.7244	3.3642	0.7068	0.6816	1.3883	0.0000	5,493.1687	5,493.1687	0.7015	0.2061	5,572.1215
2024	2.3940	16.3323	23.7086	0.0544	2.6397	0.6372	3.2769	0.7067	0.5993	1.3061	0.0000	5,426.3812	5,426.3812	0.6909	0.1993	5,503.0504
2025	99.9862	15.2551	23.1793	0.0536	2.6397	0.5507	3.1904	0.7067	0.5180	1.2247	0.0000	5,361.7130	5,361.7130	0.7165	0.1929	5,436.2428
Maximum	**99.9862**	**38.8884**	**29.5539**	**0.0634**	**19.5756**	**1.6357**	**21.1889**	**10.1152**	**1.5049**	**11.5995**	**0.0000**	**6,141.3666**	**6,141.3666**	**1.9492**	**0.2160**	**6,191.3878**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6889	38.8884	29.5539	0.0634	8.8736	1.6357	10.4869	4.5692	1.5049	6.0534	0.0000	6,141.3666	6,141.3666	1.9492	0.2160	6,191.3878
2023	2.5570	17.3875	24.3017	0.0552	2.4374	0.7244	3.1618	0.6571	0.6816	1.3387	0.0000	5,493.1687	5,493.1687	0.7015	0.2061	5,572.1215
2024	2.3940	16.3323	23.7086	0.0544	2.4373	0.6372	3.0745	0.6571	0.5993	1.2564	0.0000	5,426.3812	5,426.3812	0.6909	0.1993	5,503.0504
2025	99.9862	15.2551	23.1793	0.0536	2.4373	0.5507	2.9880	0.6570	0.5180	1.1750	0.0000	5,361.7130	5,361.7130	0.7165	0.1929	5,436.2428
Maximum	**99.9862**	**38.8884**	**29.5539**	**0.0634**	**8.8736**	**1.6357**	**10.4869**	**4.5692**	**1.5049**	**6.0534**	**0.0000**	**6,141.3666**	**6,141.3666**	**1.9492**	**0.2160**	**6,191.3878**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**41.13**	**0.00**	**36.46**	**46.55**	**0.00**	**36.70**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339
Energy	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543
Mobile	6.0881	7.1990	53.9939	0.0898	10.1951	0.0751	10.2702	2.7175	0.0701	2.7876		9,445.2127	9,445.2127	0.8529	0.5576	9,632.6959
Total	**17.4334**	**7.9731**	**88.6840**	**0.0939**	**10.1951**	**0.2946**	**10.4897**	**2.7175**	**0.2895**	**3.0070**	**0.0000**	**9,961.0205**	**9,961.0205**	**0.9209**	**0.5659**	**10,152.6841**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339
Energy	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543
Mobile	6.0881	7.1990	53.9939	0.0898	10.1951	0.0751	10.2702	2.7175	0.0701	2.7876		9,445.2127	9,445.2127	0.8529	0.5576	9,632.6959
Total	**17.4334**	**7.9731**	**88.6840**	**0.0939**	**10.1951**	**0.2946**	**10.4897**	**2.7175**	**0.2895**	**3.0070**	**0.0000**	**9,961.0205**	**9,961.0205**	**0.9209**	**0.5659**	**10,152.6841**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2022	8/23/2022	5	17	
2	Grading	Grading	8/24/2022	11/15/2022	5	60	
3	Building Construction	Building Construction	11/16/2022	4/21/2025	5	634	
4	Paving	Paving	4/22/2025	6/6/2025	5	34	
5	Architectural Coating	Architectural Coating	6/9/2025	7/24/2025	5	34	

Acres of Grading (Site Preparation Phase): 22

Acres of Grading (Grading Phase): 22

Acres of Paving: 0

Residential Indoor: 844,425; Residential Outdoor: 281,475; Non-Residential Indoor: 32,775; Non-Residential Outdoor: 10,925; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	309.00	48.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	62.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.4387	0.0000	19.4387	10.0789	0.0000	10.0789			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.4387**	**1.6126**	**21.0512**	**10.0789**	**1.4836**	**11.5624**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0576	0.0404	0.4612	1.1500e-003	0.1369	7.4000e-004	0.1377	0.0363	6.8000e-004	0.0370		116.9605	116.9605	4.4700e-003	3.9000e-003	118.2347
Total	**0.0576**	**0.0404**	**0.4612**	**1.1500e-003**	**0.1369**	**7.4000e-004**	**0.1377**	**0.0363**	**6.8000e-004**	**0.0370**		**116.9605**	**116.9605**	**4.4700e-003**	**3.9000e-003**	**118.2347**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7474	0.0000	8.7474	4.5355	0.0000	4.5355			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**8.7474**	**1.6126**	**10.3600**	**4.5355**	**1.4836**	**6.0191**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0576	0.0404	0.4612	1.1500e-003	0.1262	7.4000e-004	0.1270	0.0337	6.8000e-004	0.0344		116.9605	116.9605	4.4700e-003	3.9000e-003	118.2347
Total	**0.0576**	**0.0404**	**0.4612**	**1.1500e-003**	**0.1262**	**7.4000e-004**	**0.1270**	**0.0337**	**6.8000e-004**	**0.0344**		**116.9605**	**116.9605**	**4.4700e-003**	**3.9000e-003**	**118.2347**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4109	0.0000	6.4109	3.3522	0.0000	3.3522			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**6.4109**	**1.6349**	**8.0458**	**3.3522**	**1.5041**	**4.8563**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0640	0.0449	0.5124	1.2800e-003	0.1521	8.3000e-004	0.1530	0.0404	7.6000e-004	0.0411		129.9561	129.9561	4.9700e-003	4.3300e-003	131.3719
Total	**0.0640**	**0.0449**	**0.5124**	**1.2800e-003**	**0.1521**	**8.3000e-004**	**0.1530**	**0.0404**	**7.6000e-004**	**0.0411**		**129.9561**	**129.9561**	**4.9700e-003**	**4.3300e-003**	**131.3719**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8849	0.0000	2.8849	1.5085	0.0000	1.5085			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**2.8849**	**1.6349**	**4.5198**	**1.5085**	**1.5041**	**3.0126**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0640	0.0449	0.5124	1.2800e-003	0.1402	8.3000e-004	0.1411	0.0374	7.6000e-004	0.0382		129.9561	129.9561	4.9700e-003	4.3300e-003	131.3719
Total	**0.0640**	**0.0449**	**0.5124**	**1.2800e-003**	**0.1402**	**8.3000e-004**	**0.1411**	**0.0374**	**7.6000e-004**	**0.0382**		**129.9561**	**129.9561**	**4.9700e-003**	**4.3300e-003**	**131.3719**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1021	2.8082	0.8220	9.4700e-003	0.2892	0.0256	0.3148	0.0833	0.0245	0.1077		1,015.6534	1,015.6534	0.0265	0.1490	1,060.7170
Worker	0.9893	0.6942	7.9166	0.0197	2.3506	0.0128	2.3633	0.6235	0.0118	0.6353		2,007.8213	2,007.8213	0.0767	0.0670	2,029.6964
Total	**1.0914**	**3.5024**	**8.7386**	**0.0292**	**2.6398**	**0.0383**	**2.6781**	**0.7068**	**0.0362**	**0.7430**		**3,023.4747**	**3,023.4747**	**0.1032**	**0.2160**	**3,090.4134**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1021	2.8082	0.8220	9.4700e-003	0.2707	0.0256	0.2962	0.0787	0.0245	0.1032		1,015.6534	1,015.6534	0.0265	0.1490	1,060.7170
Worker	0.9893	0.6942	7.9166	0.0197	2.1667	0.0128	2.1795	0.5784	0.0118	0.5901		2,007.8213	2,007.8213	0.0767	0.0670	2,029.6964
Total	**1.0914**	**3.5024**	**8.7386**	**0.0292**	**2.4374**	**0.0383**	**2.4757**	**0.6571**	**0.0362**	**0.6933**		**3,023.4747**	**3,023.4747**	**0.1032**	**0.2160**	**3,090.4134**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0621	2.3888	0.7234	9.1500e-003	0.2892	0.0126	0.3017	0.0832	0.0120	0.0952		981.7473	981.7473	0.0241	0.1442	1,025.3080
Worker	0.9222	0.6138	7.3343	0.0191	2.3506	0.0121	2.3627	0.6235	0.0112	0.6347		1,956.2115	1,956.2115	0.0695	0.0619	1,976.4075
Total	**0.9842**	**3.0026**	**8.0577**	**0.0283**	**2.6398**	**0.0247**	**2.6644**	**0.7068**	**0.0232**	**0.7299**		**2,937.9588**	**2,937.9588**	**0.0936**	**0.2061**	**3,001.7155**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0621	2.3888	0.7234	9.1500e-003	0.2706	0.0126	0.2832	0.0787	0.0120	0.0907		981.7473	981.7473	0.0241	0.1442	1,025.3080
Worker	0.9222	0.6138	7.3343	0.0191	2.1667	0.0121	2.1788	0.5784	0.0112	0.5895		1,956.2115	1,956.2115	0.0695	0.0619	1,976.4075
Total	**0.9842**	**3.0026**	**8.0577**	**0.0283**	**2.4374**	**0.0247**	**2.4620**	**0.6571**	**0.0232**	**0.6802**		**2,937.9588**	**2,937.9588**	**0.0936**	**0.2061**	**3,001.7155**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0593	2.3420	0.7011	8.9800e-003	0.2892	0.0124	0.3015	0.0832	0.0118	0.0950		963.1723	963.1723	0.0235	0.1417	1,005.9939
Worker	0.8631	0.5465	6.8407	0.0185	2.3506	0.0115	2.3621	0.6235	0.0106	0.6341		1,907.5100	1,907.5100	0.0631	0.0576	1,926.2488
Total	**0.9224**	**2.8885**	**7.5418**	**0.0275**	**2.6397**	**0.0239**	**2.6636**	**0.7067**	**0.0224**	**0.7292**		**2,870.6823**	**2,870.6823**	**0.0866**	**0.1993**	**2,932.2428**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0593	2.3420	0.7011	8.9800e-003	0.2706	0.0124	0.2830	0.0787	0.0118	0.0905		963.1723	963.1723	0.0235	0.1417	1,005.9939
Worker	0.8631	0.5465	6.8407	0.0185	2.1667	0.0115	2.1783	0.5784	0.0106	0.5890		1,907.5100	1,907.5100	0.0631	0.0576	1,926.2488
Total	**0.9224**	**2.8885**	**7.5418**	**0.0275**	**2.4373**	**0.0239**	**2.4612**	**0.6571**	**0.0224**	**0.6795**		**2,870.6823**	**2,870.6823**	**0.0866**	**0.1993**	**2,932.2428**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0571	2.2951	0.6846	8.7900e-003	0.2891	0.0121	0.3012	0.0832	0.0116	0.0948		943.7479	943.7479	0.0230	0.1391	985.7787
Worker	0.8114	0.4904	6.4101	0.0179	2.3506	0.0110	2.3616	0.6235	0.0102	0.6337		1,861.4907	1,861.4907	0.0574	0.0538	1,878.9661
Total	**0.8684**	**2.7854**	**7.0947**	**0.0267**	**2.6397**	**0.0231**	**2.6628**	**0.7067**	**0.0217**	**0.7285**		**2,805.2386**	**2,805.2386**	**0.0804**	**0.1929**	**2,864.7448**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0571	2.2951	0.6846	8.7900e-003	0.2706	0.0121	0.2827	0.0787	0.0116	0.0902		943.7479	943.7479	0.0230	0.1391	985.7787
Worker	0.8114	0.4904	6.4101	0.0179	2.1667	0.0110	2.1778	0.5784	0.0102	0.5885		1,861.4907	1,861.4907	0.0574	0.0538	1,878.9661
Total	**0.8684**	**2.7854**	**7.0947**	**0.0267**	**2.4373**	**0.0231**	**2.4604**	**0.6570**	**0.0217**	**0.6788**		**2,805.2386**	**2,805.2386**	**0.0804**	**0.1929**	**2,864.7448**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0394	0.0238	0.3112	8.7000e-004	0.1141	5.4000e-004	0.1146	0.0303	4.9000e-004	0.0308		90.3636	90.3636	2.7900e-003	2.6100e-003	91.2120
Total	**0.0394**	**0.0238**	**0.3112**	**8.7000e-004**	**0.1141**	**5.4000e-004**	**0.1146**	**0.0303**	**4.9000e-004**	**0.0308**		**90.3636**	**90.3636**	**2.7900e-003**	**2.6100e-003**	**91.2120**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0394	0.0238	0.3112	8.7000e-004	0.1052	5.4000e-004	0.1057	0.0281	4.9000e-004	0.0286		90.3636	90.3636	2.7900e-003	2.6100e-003	91.2120
Total	**0.0394**	**0.0238**	**0.3112**	**8.7000e-004**	**0.1052**	**5.4000e-004**	**0.1057**	**0.0281**	**4.9000e-004**	**0.0286**		**90.3636**	**90.3636**	**2.7900e-003**	**2.6100e-003**	**91.2120**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	99.6525					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**99.8234**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1628	0.0984	1.2862	3.5900e-003	0.4716	2.2100e-003	0.4739	0.1251	2.0400e-003	0.1271		373.5030	373.5030	0.0115	0.0108	377.0094
Total	**0.1628**	**0.0984**	**1.2862**	**3.5900e-003**	**0.4716**	**2.2100e-003**	**0.4739**	**0.1251**	**2.0400e-003**	**0.1271**		**373.5030**	**373.5030**	**0.0115**	**0.0108**	**377.0094**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	99.6525					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**99.8234**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1628	0.0984	1.2862	3.5900e-003	0.4348	2.2100e-003	0.4370	0.1161	2.0400e-003	0.1181		373.5030	373.5030	0.0115	0.0108	377.0094
Total	**0.1628**	**0.0984**	**1.2862**	**3.5900e-003**	**0.4348**	**2.2100e-003**	**0.4370**	**0.1161**	**2.0400e-003**	**0.1181**		**373.5030**	**373.5030**	**0.0115**	**0.0108**	**377.0094**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.0881	7.1990	53.9939	0.0898	10.1951	0.0751	10.2702	2.7175	0.0701	2.7876		9,445.2127	9,445.2127	0.8529	0.5576	9,632.6959
Unmitigated	6.0881	7.1990	53.9939	0.0898	10.1951	0.0751	10.2702	2.7175	0.0701	2.7876		9,445.2127	9,445.2127	0.8529	0.5576	9,632.6959

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,099.20	1,099.20	1099.20	1,684,778	1,684,778
Condo/Townhouse	1,210.68	1,210.68	1210.68	1,841,192	1,841,192
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	911.04	911.04	911.04	1,310,549	1,310,549
Total	3,220.92	3,220.92	3,220.92	4,836,520	4,836,520

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	5.00	4.00	3.38	46.50	12.50	41.00	100	0	0
Condo/Townhouse	5.00	4.00	3.30	46.50	12.50	41.00	100	0	0
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High Turnover (Sit Down	5.00	4.00	3.30	8.50	72.50	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Condo/Townhouse	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Health Club	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
High Turnover (Sit Down Restaurant)	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543
NaturalGas Unmitigated	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	2240.8	0.0242	0.2197	0.1845	1.3200e-003		0.0167	0.0167		0.0167	0.0167		263.6235	263.6235	5.0500e-003	4.8300e-003	265.1901
High Turnover (Sit Down Restaurant)	1616.99	0.0174	0.1585	0.1332	9.5000e-004		0.0121	0.0121		0.0121	0.0121		190.2337	190.2337	3.6500e-003	3.4900e-003	191.3642
Total		**0.0416**	**0.3782**	**0.3177**	**2.2700e-003**		**0.0288**	**0.0288**		**0.0288**	**0.0288**		**453.8572**	**453.8572**	**8.7000e-003**	**8.3200e-003**	**456.5543**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	2.2408	0.0242	0.2197	0.1845	1.3200e-003		0.0167	0.0167		0.0167	0.0167		263.6235	263.6235	5.0500e-003	4.8300e-003	265.1901
High Turnover (Sit Down Restaurant)	1.61699	0.0174	0.1585	0.1332	9.5000e-004		0.0121	0.0121		0.0121	0.0121		190.2337	190.2337	3.6500e-003	3.4900e-003	191.3642
Total		**0.0416**	**0.3782**	**0.3177**	**2.2700e-003**		**0.0288**	**0.0288**		**0.0288**	**0.0288**		**453.8572**	**453.8572**	**8.7000e-003**	**8.3200e-003**	**456.5543**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339
Unmitigated	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9283					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.3432					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0321	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907		61.9506	61.9506	0.0593		63.4339
Total	**11.3037**	**0.3959**	**34.3724**	**1.8200e-003**		**0.1907**	**0.1907**		**0.1907**	**0.1907**	**0.0000**	**61.9506**	**61.9506**	**0.0593**	**0.0000**	**63.4339**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9283					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.3432					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0321	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907		61.9506	61.9506	0.0593		63.4339
Total	**11.3037**	**0.3959**	**34.3724**	**1.8200e-003**		**0.1907**	**0.1907**		**0.1907**	**0.1907**	**0.0000**	**61.9506**	**61.9506**	**0.0593**	**0.0000**	**63.4339**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

CalEEMod VMT Calculator

This calcultor was created based on the default trip inputs for the unmitigated CalEEMod run. The calculator calculateds the annual VMT from the proposed project using the same methodology from CalEEMod, described in Appendix A, for the UNMITIGATED SCENARIO. This calculator can be used to adjust land use trip rates for the MITIGATED PROJECT scenario which is based on the traffic study conducted for the project

Daily VMT Provided 320 days per year

Annual VMT Provided 4,832,236

Trip Type

CalEEMod defaults based on land uses inputted

Land Use	Miles			Trip %			Trip Purpose		
	H-w or C-W	H-S or C-C	H-O or C-O	H-w or C-W	H-S or C-C	H-O or C-O	Primary	Diverted	Pass-by
Apartments Mid Rise	5.00	4.00	3.38	46.5%	12.5%	41.0%	100.0%	0.0%	0.0%
Townhomes	5.00	4.00	3.30	46.5%	12.5%	41.0%	100.0%	0.0%	0.0%
High Turnover Restaurant	5.00	4.00	3.30	8.5%	72.5%	19.0%	100.0%	0.0%	0.0%

Total Trips

Total Trips = (TripRate weekday x 5 +Trip Sat + Trip Sun)

Average Daily Trips Based on CalEEMod Trip Gen Defaults per land use unit. Total trips Calculated

Land Use	Average Daily Trip Rate			
	weekday	Saturday	Sunday	Total Trips (weekly)
Apartments Mid Rise	1,098.00	1,098.00	1,098.00	**7,686.00**
Townhomes	1,210.00	1,210.00	1,210.00	**8,470.00**
High Turnover Restaurant	911.00	911.00	911.00	**6,377.00**

Trip Length Calc

AVG Trip Length = Link % primary x trip length primary+link % divertedx0.25x length trip primary+link % passbyx0.1

Trip length calculated for each trip type based on trip purpose % and length defaults from CalEEMod

Land Use

Apartments Mid Rise	link % primary	trip length primary	link % diverted	Constant (0.25)	trip length primary	link % passby	constant	Trip Length
H-W or c-w	100.0%	5.00	0.0%	0.25	5	0.0%	0.1	5.0
h-s or c-c	100.0%	4.00	0.0%	0.25	4	0.0%	0.1	4.0
h-o or c-o	100.0%	3.38	0.0%	0.25	3.38	0.0%	0.1	3.4
Townhomes	link % primary	trip length primary	link % diverted	Constant (0.25)	trip length primary	link % passby	constant	Trip Length
H-W or c-w	100.0%	5.00	0.0%	0.25	5.00	0.0%	0.1	5.0
h-s or c-c	100.0%	4.00	0.0%	0.25	4.00	0.0%	0.1	4.0
h-o or c-o	100.0%	3.30	0.0%	0.25	3.30	0.0%	0.1	3.3
High Turnover Restaurant	link % primary	trip length primary	link % diverted	Constant (0.25)	trip length primary	link % passby	constant	Trip Length
H-W or c-w	100.0%	5.00	0.0%	0.25	5.00	0.0%	0.1	5.0
h-s or c-c	100.0%	4.00	0.0%	0.25	4.00	0.0%	0.1	4.0
h-o or c-o	100.0%	3.30	0.0%	0.25	3.30	0.0%	0.1	3.3
0	link % primary	trip length primary	link % diverted	Constant (0.25)	trip length primary	link % passby	constant	Trip Length
H-W or c-w	0.0%	0.00	0.0%	0.25	0.00	0.0%	0.1	0.0
h-s or c-c	0.0%	0.00	0.0%	0.25	0.00	0.0%	0.1	0.0
h-o or c-o	0.0%	0.00	0.0%	0.25	0.00	0.0%	0.1	0.0
0	link % primary	trip length primary	link % diverted	Constant (0.25)	trip length primary	link % passby	constant	Trip Length
H-W or c-w	0.0%	0.00	0.0%	0.25	0.00	0.0%	0.1	0.0
h-s or c-c	0.0%	0.00	0.0%	0.25	0.00	0.0%	0.1	0.0
h-o or c-o	0.0%	0.00	0.0%	0.25	0.00	0.0%	0.1	0.0

VMT Calc Per Land Use Type (Weekly)

VMT = #Trips x AVG Trip Length per land use and trip type

Trip number for each trip type are derived by multiplying the total trips for each land use calculated above in the Total Trip Calcs by the trip % shown in the Trip Type table for each land use

Apartments Mid Rise	**# trips**	**trip length**	**Weekly VMT**	**Annual VMT**
H-W or c-w	3,574	5.0	17,870	
h-s or c-c	961	4.0	3,843	
h-o or c-o	3,151	3.4	10,651	1,682,938.86
Townhomes				
H-W or c-w	3,939	5.0	19,693	
h-s or c-c	1,059	4.0	4,235	
h-o or c-o	3,473	3.3	11,460	1,840,158.32
High Turnover Restaurant				
h-s or c-c	542	5.0	2,710	
h-o or c-o	4,623	4.0	18,493	
h-o or c-o	1,212	3.3	3,998	1,310,499.01
0				
H-W or c-w	0	0.0	-	
h-s or c-c	0	0.0	-	
h-o or c-o	0	0.0	-	-
0				
H-W or c-w	0	0.0	-	
h-s or c-c	0	0.0	-	
h-o or c-o	0	0.0	-	-
Total VMT			92,954	4,833,596.19

Annual VMT Calc

the calculated weekly VMT for each land use is summed. This value is multiplied by 50 weeks/year to equal the annual VMT number calculated by CalEEMod

Summed Weekly VMT from Each Land Use	92,953.77		
Weeks per Year CalEEMod Uses for Annual VMT	52.00	52.0000	52.14285714
Calculated Annual VMT	**4,833,596**		

Natural Gas Conversion to Electricity

	CalEEMod Land Use Inputs			CalEEMod Energy Use Defaults					NG To E Conversion		CalEEMod Override	
				T24E	NT24E	LightingElect	T24NG	NT24NG	T24NG	NT24NG	T24NG	NT24NG
Land Use	Unit Amount	Size Metric	SF	kWh/size/yr	kWh/size/yr	kWh/size/yr	kBTU/size/year	kBTU/size/year	kBTU/size/year	kBTU/size/year		
Apartments Mid Rise	240	DU	240,000.00	98.18	3,054.10	741.44	6,729.23	2,687.00	1,973.38	787.98	**2,071.56**	**3,842.08**
Condo/Townhouse	177	DU	177,000.00	80.14	3,795.01	1,001.10	16,185.01	2,687.00	4,746.34	787.98	**4,826.48**	**8,621.49**
Health Club	14.6	1000 SF	14,600.00	3.05	7.20	4.57	23.15	12.42	6.79		**9.84**	**55.98**
High Turnover (Sit Down Restaurant)	4.999	1000 SF	4,999.00	7.86	26.72	6.19	59.07	118.04	17.32		**25.18**	
Energy Conversion Factors		3.41		kWh/kBTU								

Gas Firepit Natural Gas Use	Value	Unit	Source
Burner Rating	92000	BTU/HR	homedepot.com
Hours per use	4		assumption
days / month	12		assumption
days / year	72		assumption
NG / fire pit / year	317952000	BTU/YR	
Project (2 fire pits)	635904000	BTU/YR	
Annual NG Use	**635904**	**KBTU/YR**	
CalEEmod Input			
Health Club	14600	SF	
	43.6	KBTU/SF/YR	

Notes: NG use was converted to electricty use based on CalEEMod default energy demand and converting BTU to KWH. Then the converted values were added to the projects' Electricity demand. Hihglighted cells represent NG values converted to electricity. Natural gas for the non-residential uses would be limited to pool/spa heating and 2 outdoor firepits. Firepit gas use was added to NONT24 NG Use for the health club/community center use

Construction Schedule Adjustment

Phase Name	Phase Type	CalEEMod Total Days	Portion of Construction Schedule	Construction Schedule for 36 months	Check
Site Preparation	Site Preparation	10	2%	17	2%
Grading	Grading	35	8%	60	8%
Building Construction	Building Construction	370	81%	634	81%
Paving	Paving	20	4%	34	4%
Architectural Coating	Architectural Coating	20	4%	34	4%
		455	100%	780	100%

Electric Vehicle Charging GHG Credit Calculation

	EV Chargers		
1	Number of EV Chargers	12	From calcualted number of electrically connected parking spaces
2	Percent of EV vehicles in Sacramento County - Residential	8%	Calculated using EMFAC 2021
3	Connections per Charging Station	1	1 connection at each charging station
4	Average Charging Hours per Connection per Day	3	Note 1
5	Average Total Hours Charging per year for all Connections	13,140	Item 1 * Item 2 * Item 3 * Item 4 * 365
6	Typical Average Charging Rate (kWh/hr)	6	Note 2
7	Total kWh charged per year	78,840	Item 5 * Item 6
8	Total MWh charged per year	79	Item 7 / 1000
9	**Public Charging Stations**		
10	Average Efficiency of EV LDV (kWh/100 mi)	34.0	Note 3
11	Average Efficiency of EV LDV (miles per kWh)	2.9	100 mi / Item 10
12	Number of Equivalent Miles Charged per year (gasoline miles avoided)	231,882	Item 7 * Item 11
13			
14	SMUD CO2 intensity in 2026 (lbs/MWh)	186.1	Note 4
15			
16	CO2 running emission factor for gasoline vehicles in 2026 (g/mi)	281.1	Note 5
17			
18	Annual CO2 Emissions Saved through Charging (tons per year)	71.8	Item 12 * Item 16 converted to tons
19	Annual CO2 Emissions Saved through Charging (metric tons per year)	65.2	Convert Item 18 to metric tons
20	Annual CO2 Emissions from Electricity required to charge (metric tons per year)	6.7	Item 8 * Item 14 converted to metric tons
21	**Net Annual CO2 Emissions Saved (metric tons per year)**	**58.5**	Item 19 minus Item 20

Note 1: Drive Clean California states that it takes 4 to 6 hours to fully charge an EV. But one would not typically allow the vehicle to be empty before charging, thus assumed 3 hrs/charge.
Note 2: Drive Clean California states that EVs have battery capacities of 24 to 36 kWh and fully charge in 4 to 6 hours, so 6 kWh/hr.
Note 3: Average effeciency of 24 model year 2019 electric vehicles, per USDOE. Used only model year 2019 because vehicles will be more efficient in 2035 than in the past.
Note 4: 2026 operational year adjusted according to SMUD 2030 carbon neutrality goal
Note 5: From EMFAC 2021 for gasoline engines, all models and model years; calendar year 2026.

Sequestration Credit Calculation	
Tree Type	Quantity
Red Maple	48
Chinese pistache	49
Frontier Elm	49
village green	49
deodar cedar	28
fern pine	28
holly oak	28
western redbud	68
red crape myrtle	69
little gem	69
pink dawn	69
trident maple	47
princeton sentry	47
golden rain	47
musashino	48
Red oak	30
True green lacebark elm	31
Total Trees	*804*
MTCO2 Accumulation per tree/year	0.0354
Total Redux (MT/yr)	**28**
Notes: Annual CO2 accumulation rate from CalEEMod 2020 Appendix A for miscellaneoous trees.	

Operational Energy Summary

Land Use	Natural Gas kBTU/year	Natural Gas therm/year	Electricity kWh/year	Electricity MWh/year
Apartments Mid Rise	0	0	1,597,110	1,597
Condo/Townhouse	0	0	2,557,490	
Health Club	817,892	8,179	315,506	
High Turnover (Sit Down Restaurant)	590,200	5,902	290,450	
	0	0		0
Total	**1,408,092**	**14,081**	**4,760,556**	**1,597**

Energy Calculations Summary

Operational Fuel Use Summary

Fuel Type	Fleet Mix (%)	Gallons per Mile	Annual VMT	Gallons
Gasoline	98.81%	0.04	4,836,520	196,025
Diesel	1.19%	0.12		6,770

Notes:

1. Fleet mix calculated from CalEEMod default values.
2. Gallons per mile calculated from EMFAC 2021.
3. Annual VMT obtained from CalEEMod output file.

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Sacramento
Calendar Year: 2026
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	CVMT miles/day	EVMT miles/day	Trips trips/day	Gasoline Fuel Consumption 1,000 gallons/day	Diesel Fuel Consumption 1,000 gallons/day
Sacrament	2026	All Other Buses	Aggregate	Aggregate	Diesel	469.187762	24539.43255	24539.43255	0	4175.771082		2.749873598
Sacrament	2026	All Other Buses	Aggregate	Aggregate	Natural Ga	63.96416593	3722.56086	3722.56086	0	569.2810768	0	
Sacrament	2026	LDA	Aggregate	Aggregate	Gasoline	490520.664	17966701.5	17966701.5	0	2254615.988	604.9983217	
Sacrament	2026	LDA	Aggregate	Aggregate	Diesel	1430.745301	37721.50272	37721.50272	0	5893.808305		0.864720808
Sacrament	2026	LDA	Aggregate	Aggregate	Electricity	28982.42278	1380306.326	0	1380306.326	143407.6929	0	
Sacrament	2026	LDA	Aggregate	Aggregate	Plug-in Hyb	14977.6109	654841.653	312089.4567	342752.1963	61932.42107	0	
Sacrament	2026	LDT1	Aggregate	Aggregate	Gasoline	47430.07468	1500520.957	1500520.957	0	206539.2245	60.50798247	
Sacrament	2026	LDT1	Aggregate	Aggregate	Diesel	16.20559695	143.3004056	143.3004056	0	44.90788683		0.006017598
Sacrament	2026	LDT1	Aggregate	Aggregate	Electricity	175.1803744	7332.135322	0	7332.135322	826.2935804	0	
Sacrament	2026	LDT1	Aggregate	Aggregate	Plug-in Hyb	92.6274366	4507.170864	1927.974638	2579.196226	383.0144504	0	
Sacrament	2026	LDT2	Aggregate	Aggregate	Gasoline	241263.535	9009804.273	9009804.273	0	1117072.271	374.4565018	
Sacrament	2026	LDT2	Aggregate	Aggregate	Diesel	773.0221254	30675.15942	30675.15942	0	3663.465023		0.929146636
Sacrament	2026	LDT2	Aggregate	Aggregate	Electricity	1942.902522	68690.07787	0	68690.07787	9829.02384	0	
Sacrament	2026	LDT2	Aggregate	Aggregate	Plug-in Hyb	2236.214513	103421.9192	46576.65582	56845.26342	9246.747013	0	
Sacrament	2026	LHD1	Aggregate	Aggregate	Gasoline	20553.00978	740600.0124	740600.0124	0	306209.2217	76.09755447	
Sacrament	2026	LHD1	Aggregate	Aggregate	Diesel	13789.3624	491992.1781	491992.1781	0	173452.8319		30.6578936
Sacrament	2026	LHD1	Aggregate	Aggregate	Electricity	243.7058975	16291.82349	0	16291.82349	3410.850772	0	
Sacrament	2026	LHD2	Aggregate	Aggregate	Gasoline	2842.835824	102173.044	102173.044	0	42354.01795	11.68314156	
Sacrament	2026	LHD2	Aggregate	Aggregate	Diesel	5354.107557	200747.7344	200747.7344	0	67347.9376		15.02769638
Sacrament	2026	LHD2	Aggregate	Aggregate	Electricity	62.04140345	3950.499601	0	3950.499601	823.0006996	0	
Sacrament	2026	MCY	Aggregate	Aggregate	Gasoline	26668.73903	143066.9299	143066.9299	0	53337.47807	3.556738291	
Sacrament	2026	MDV	Aggregate	Aggregate	Gasoline	152420.7174	5305204.632	5305204.632	0	692362.459	270.171663	
Sacrament	2026	MDV	Aggregate	Aggregate	Diesel	2517.863077	91089.26373	91089.26373	0	11617.91905		3.686918234
Sacrament	2026	MDV	Aggregate	Aggregate	Electricity	2074.444415	73273.89269	0	73273.89269	10492.0296	0	
Sacrament	2026	MDV	Aggregate	Aggregate	Plug-in Hyb	1385.855033	62349.05819	28424.07977	33924.97841	5730.510562	0	
Sacrament	2026	MH	Aggregate	Aggregate	Gasoline	2559.574889	22993.19608	22993.19608	0	256.0598719	5.210088179	
Sacrament	2026	MH	Aggregate	Aggregate	Diesel	1079.195807	9690.490905	9690.490905	0	107.9195807		1.031832885
Sacrament	2026	Motor Coach	Aggregate	Aggregate	Diesel	100.32814	12949.10452	12949.10452	0	2305.540658		2.309416706
Sacrament	2026	OBUS	Aggregate	Aggregate	Gasoline	495.2475434	20608.72061	20608.72061	0	9908.912848	4.303585972	
Sacrament	2026	OBUS	Aggregate	Aggregate	Electricity	2.88628539	251.4188919	0	251.4188919	57.74879808	0	
Sacrament	2026	PTO	Aggregate	Aggregate	Diesel	0	24092.85203	24092.85203	0	0		4.755018899
Sacrament	2026	PTO	Aggregate	Aggregate	Electricity	0	481.9543973	0	481.9543973	0	0	
Sacrament	2026	SBUS	Aggregate	Aggregate	Gasoline	124.4030436	6562.066813	6562.066813	0	497.6121745	0.644930373	
Sacrament	2026	SBUS	Aggregate	Aggregate	Diesel	978.5761745	21442.65244	21442.65244	0	14169.78301		2.627989581
Sacrament	2026	SBUS	Aggregate	Aggregate	Electricity	10.02998753	298.0278886	0	298.0278886	130.771368	0	
Sacrament	2026	SBUS	Aggregate	Aggregate	Natural Ga	21.01785741	543.0029585	543.0029585	0	304.3385753	0	
Sacrament	2026	T6 CAIRP heavy	Aggregate	Aggregate	Diesel	86.00951747	17475.87079	17475.87079	0	1976.498711		1.754150003
Sacrament	2026	T6 CAIRP heavy	Aggregate	Aggregate	Electricity	1.487381231	319.9836782	0	319.9836782	34.18002069	0	
Sacrament	2026	T6 CAIRP small	Aggregate	Aggregate	Diesel	79.61842908	4571.996471	4571.996471	0	1829.6315		0.499597629
Sacrament	2026	T6 CAIRP small	Aggregate	Aggregate	Electricity	2.201360175	142.3572475	0	142.3572475	50.58725682	0	
Sacrament	2026	T6 instate heavy	Aggregate	Aggregate	Diesel	1843.780194	94154.78748	94154.78748	0	21847.76304		10.53189865
Sacrament	2026	T6 instate heavy	Aggregate	Aggregate	Electricity	17.53914364	1223.031882	0	1223.031882	207.4182443	0	
Sacrament	2026	T6 instate heavy	Aggregate	Aggregate	Natural Ga	22.09919057	1176.416337	1176.416337	0	263.1639654	0	
Sacrament	2026	T6 instate small	Aggregate	Aggregate	Diesel	8555.548547	342046.6012	342046.6012	0	105744.0557		40.04575231
Sacrament	2026	T6 instate small	Aggregate	Aggregate	Electricity	130.3058239	5927.817245	0	5927.817245	1609.535127	0	
Sacrament	2026	T6 OOS heavy	Aggregate	Aggregate	Diesel	40.80334327	10424.70385	10424.70385	0	937.6608284		1.035209095
Sacrament	2026	T6 OOS small	Aggregate	Aggregate	Diesel	41.63624961	2382.316205	2382.316205	0	956.8010162		0.254734086
Sacrament	2026	T6 Public	Aggregate	Aggregate	Diesel	4314.307581	176583.4194	176583.4194	0	22132.39789		22.20162172
Sacrament	2026	T6 Public	Aggregate	Aggregate	Electricity	74.23363427	4012.929923	0	4012.929923	380.8185438	0	0
Sacrament	2026	T6 Public	Aggregate	Aggregate	Natural Ga	315.5112084	15001.6853	15001.6853	0	1618.572499	0	
Sacrament	2026	T6 Utility	Aggregate	Aggregate	Diesel	56.74396494	2370.191415	2370.191415	0	726.3227512		0.264506374
Sacrament	2026	T6 Utility	Aggregate	Aggregate	Electricity	1.658707928	76.41549833	0	76.41549833	21.23146147	0	0
Sacrament	2026	T6 Utility	Aggregate	Aggregate	Natural Ga	0.226900822	8.924759104	8.924759104	0	2.904330522	0	
Sacrament	2026	T6TS	Aggregate	Aggregate	Gasoline	1903.640767	88998.34196	88998.34196	0	38088.04447	18.97044875	
Sacrament	2026	T6TS	Aggregate	Aggregate	Electricity	14.9545781	1303.3502	0	1303.3502	299.2111987	0	
Sacrament	2026	T7 CAIRP	Aggregate	Aggregate	Diesel	944.067804	190960.7055	190960.7055	0	21694.67814		30.29237639
Sacrament	2026	T7 CAIRP	Aggregate	Aggregate	Electricity	20.48343024	4095.007002	0	4095.007002	470.709227	0	0
Sacrament	2026	T7 CAIRP	Aggregate	Aggregate	Natural Ga	16.00862633	3223.636003	3223.636003	0	367.878233	0	
Sacrament	2026	T7 NNOOS	Aggregate	Aggregate	Diesel	835.5760283	228,427	228,427	0	19201.53713		34.89437454
Sacrament	2026	T7 NOOS	Aggregate	Aggregate	Diesel	356.6723128	83,058	83,058	0	8196.329747		13.065692
Sacrament	2026	T7 Other Port	Aggregate	Aggregate	Diesel	11.32242384	2,158	2,158	0	185.234854		0.357830914
Sacrament	2026	T7 Other Port	Aggregate	Aggregate	Electricity	0.088238037	22	0	22	1.443574288	0	0
Sacrament	2026	T7 POAK	Aggregate	Aggregate	Diesel	37.29725649	3,758	3,758	0	610.1831162		0.637245925
Sacrament	2026	T7 POAK	Aggregate	Aggregate	Electricity	0.357840542	32	0	32	5.854271264	0	0
Sacrament	2026	T7 Public	Aggregate	Aggregate	Diesel	4151.305876	177,857	177,857	0	21296.19914		33.47375916
Sacrament	2026	T7 Public	Aggregate	Aggregate	Electricity	50.6323713	3,126	0	3,126	259.7440648	0	
Sacrament	2026	T7 Public	Aggregate	Aggregate	Natural Ga	70.34116703	3,357	3,357	0	360.8501869	0	0
Sacrament	2026	T7 Single	Aggregate	Aggregate	Diesel	2123.052317	118,067	118,067	0	19999.15283		19.96260812
Sacrament	2026	T7 Single	Aggregate	Aggregate	Electricity	33.2038691	2,427	0	2,427	312.780447	0	
Sacrament	2026	T7 Single	Aggregate	Aggregate	Natural Ga	60.89407745	3,269	3,269	0	573.6222095		0
Sacrament	2026	T7 SWCV	Aggregate	Aggregate	Diesel	263.6072934	17,098	17,098	0	1212.59355		7.201061966
Sacrament	2026	T7 SWCV	Aggregate	Aggregate	Electricity	10.62555179	678	0	678	48.87753825	0	
Sacrament	2026	T7 SWCV	Aggregate	Aggregate	Natural Ga	645.7133562	41,831	41,831	0	2970.281438	0	0
Sacrament	2026	T7 Tractor	Aggregate	Aggregate	Diesel	1078.537414	78,676	78,676	0	15671.14863		12.68992142
Sacrament	2026	T7 Tractor	Aggregate	Aggregate	Electricity	10.00988609	818	0	818	145.4436448	0	
Sacrament	2026	T7 Tractor	Aggregate	Aggregate	Natural Ga	11.80534026	816	816	0	171.5315939	0	0
Sacrament	2026	T7 Utility	Aggregate	Aggregate	Diesel	30.09060645	1,316	1,316	0	385.1597625		0.224192357
Sacrament	2026	T7 Utility	Aggregate	Aggregate	Electricity	0.315515578	20	0	20	4.038599395	0	
Sacrament	2026	T7IS	Aggregate	Aggregate	Gasoline	5.564040018	168	168	0	111.3253127	0.046390148	
Sacrament	2026	T7IS	Aggregate	Aggregate	Electricity	0.013175005	4	0	4	0.263605508	0	
Sacrament	2026	UBUS	Aggregate	Aggregate	Gasoline	189.1264912	14,348	14,348	0	756.5059648	3.053781283	
Sacrament	2026	UBUS	Aggregate	Aggregate	Diesel	6.215216529	294	294	0	24.86086612		0.03113556
Sacrament	2026	UBUS	Aggregate	Aggregate	Electricity	4.985657859	521	0	521	19.94263144	0	
Sacrament	2026	UBUS	Aggregate	Aggregate	Natural Ga	359.717215	34,419	34,419	0	1438.86886		
											1433.70	**294.06**

TOTAL	39,926,625
Total (Gas)	34,921,749
Total (Diesel)	2,496,762

Annual VMT
4,832,236

	Mix (%)	Miles	Gallons
Gas	98.8%	4,774,742	196,025
Diesel	1.2%	57,484	6,770

Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
All Project Land Uses	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071

Gas	98.8%
Diesel	1.2%

23.1	0.04
24.4	0.04
8.5	0.12

Energy Calculations Summary

Construction Fuel Usage Summary

Construction Year	Diesel Off-road Equipment (gallons)	Gasoline On-road (gallons)	Diesel On-road (gallons)	Diesel Combined
2022	14,448	5,372	76	14,524
2023	18,039	37,039	76	18,115
2024	1,302	36,759	76	1,377
2025	7,873	12,024	75	7,948
TOTAL	**41,661**	**91,194**	**303**	41,964

Total Gasoline	**91,194**	**gallons**
Total Diesel	**41,964**	**gallons**

Construction Offroad Equipment

2022

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40	17	0.6	1,209
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37	17	0.6	586
Grading	Excavators	2	8.00	158	0.38	60	0.6	1,729
Grading	Graders	1	8.00	187	0.41	60	0.6	1,104
Grading	Rubber Tired Dozers	1	8.00	247	0.40	60	0.6	1,423
Grading	Scrapers	2	8.00	367	0.48	60	0.6	5,073
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37	60	0.6	1,034
Building Construction	Cranes	1	7.00	231	0.29	33	0.6	464
Building Construction	Forklifts	3	8.00	89	0.20	33	0.6	423
Building Construction	Generator Sets	1	8.00	84	0.74	33	0.6	492
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37	33	0.6	746
Building Construction	Welders	1	8.00	46	0.45	33	0.6	164
							TOTAL	**14,448**

2023

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage
Building Construction	Cranes	1	7.00	231	0.29	260	0.6	3,658
Building Construction	Forklifts	3	8.00	89	0.20	260	0.6	3,332
Building Construction	Generator Sets	1	8.00	84	0.74	260	0.6	3,879
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37	260	0.6	5,879
Building Construction	Welders	1	8.00	46	0.45	260	0.6	1,292
							TOTAL	**18,039**

2024

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage
Building Construction	Cranes	1	7.00	231	0.29	262	0.6	3,686
Building Construction	Forklifts	3	8.00	89	0.20	262	0.6	3,358
Building Construction	Generator Sets	1	8.00	84	0.74	262	0.6	3,909
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37	262	0.6	5,924
Building Construction	Welders	1	8.00	46	0.45	262	0.6	1,302
							TOTAL	**18,178**

2025

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage

	Year	Start Date	End Date	Network Days
Site Preparation	2022	8/1/2022	8/23/2022	17
Grading	2022	8/24/2022	11/15/2022	60
Building Construction	2022	11/16/2022	12/31/2022	33
	2023	1/1/2023	12/31/2023	260
	2024	1/1/2024	12/31/2024	262
	2025	1/1/2025	4/21/2025	79
Paving	2025	4/22/2025	6/6/2025	34
Architectural Coating	2025	6/9/2025	7/24/2025	34

Building Construction	Cranes	1	7.00	231	0.29	79	0.6	1,111
Building Construction	Forklifts	3	8.00	89	0.20	79	0.6	1,012
Building Construction	Generator Sets	1	8.00	84	0.74	79	0.6	1,179
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37	79	0.6	1,786
Building Construction	Welders	1	8.00	46	0.45	79	0.6	392
Paving	Pavers	2	8.00	130	0.42	34	0.6	891
Paving	Paving Equipment	2	8.00	132	0.36	34	0.6	776
Paving	Rollers	2	8.00	80	0.38	34	0.6	496
Architectural Coating	Air Compressors	1	6.00	78	0.48	34	0.6	229
							TOTAL	**7,873**

Trips and VMT

2022

Phase Name	Daily Worker Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Hauling Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	**Total gallons of gasoline**	**Total gallons of diesel**
Site Preparation	18	17	306	0	0	10.00	6.50	20.00	3060	0	0	**121**	**0**
Grading	20	60	1200	0	0	10.00	6.50	20.00	12000	0	0	**473**	**0**
Building Construction	367	33	12111	71	0	10.00	6.50	20.00	121110	461.5	0	**4,778**	**76**
											TOTAL	**5,372**	**76**

2023

Phase Name	Daily Worker Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Hauling Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	**Total gallons of gasoline**	**Total gallons of diesel**
Building Construction	367	260	95420	71	0	10.00	6.50	20.00	954200	461.5	0	**37,039**	**76**
											TOTAL	**37,039**	**76**

2024

Phase Name	Daily Worker Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Hauling Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	**Total gallons of gasoline**	**Total gallons of diesel**
Building Construction	367	262	96154	71	0	10.00	6.50	20.00	961540	461.5	0	**36,759**	**76**
											TOTAL	**36,759**	**76**

2025

Phase Name	Daily Worker Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Hauling Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	**Total gallons of gasoline**	**Total gallons of diesel**
Building Construction	367	79	28993	71	0	10.00	6.50	20.00	289930	461.5	0	**10,899**	**75**
Architectural Coating	15	34	510	0	0	10.00	6.50	20.00	5100	0	0	**192**	**0**
Paving	73	34	2482	0	0	10.00	6.50	20.00	24820	0	0	**933**	**0**
											TOTAL	**12,024**	**75**

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Sacramento
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	CVMT miles/day	EVMT miles/day	Trips trips/day	Fuel gas 1,000 gallons/day	Diesel gas 1,000 gallons/day	Miles per gallon	Gasoline miles per gallon	Diesel miles per gallon
Sacramento	2022	LDA	Aggregate	Aggregate	Gasoline	498280.3185	17917435.6	17917435.6	0	2295902.336	644.537125	0.00	27.80	25.35	6.04
Sacramento	2022	LDT1	Aggregate	Aggregate	Gasoline	53385.04527	1674043.998	1674043.998	0	234015.9091	71.26492603	0.00	23.49		
Sacramento	2022	LDT2	Aggregate	Aggregate	Gasoline	223889.1265	8219931.936	8219931.936	0	1039827.381	368.4103964	0.00	22.31		
Sacramento	2022	T7 Tractor	Aggregate	Aggregate	Diesel	874.6914234	72842.33002	72842.33002	0	12709.26638	0.00	12.06334267	6.04		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Sacramento
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	CVMT miles/day	EVMT miles/day	Trips trips/day	Fuel gas 1,000 gallons/day	Diesel gas 1,000 gallons/day	Miles per gallon	Gasoline miles per gallon	Diesel miles per gallon
Sacramento	2023	LDA	Aggregate	Aggregate	Gasoline	495444.1701	18039887.07	18039887.07	0	2281180.251	638.6074247	0.00	28.25	25.76	6.07
Sacramento	2023	LDT1	Aggregate	Aggregate	Gasoline	51757.60145	1638073.93	1638073.93	0	226418.361	68.8387086	0.00	23.80		
Sacramento	2023	LDT2	Aggregate	Aggregate	Gasoline	228403.2253	8495404.827	8495404.827	0	1060056.933	373.3642939	0.00	22.75		
Sacramento	2023	T7 Tractor	Aggregate	Aggregate	Diesel	917.7542763	74396.80266	74396.80266	0	13334.96964	0.00	12.25004566	6.07		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Sacramento
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	CVMT miles/day	EVMT miles/day	Trips trips/day	Fuel gas 1,000 gallons/day	Diesel gas 1,000 gallons/day	Miles per gallon	Gasoline miles per gallon	Diesel miles per gallon
Sacrament	2024	LDA	Aggregate	Aggregate	Gasoline	493200.1993	18074528.65	18074528.65	0	2269233.534	630.0875563	0.00	28.69	26.16	6.11
Sacrament	2024	LDT1	Aggregate	Aggregate	Gasoline	50226.44621	1595989.731	1595989.731	0	219342.9065	66.24563327	0.00	24.09		
Sacrament	2024	LDT2	Aggregate	Aggregate	Gasoline	232779.326	8714872.614	8714872.614	0	1079554.899	376.1530767	0.00	23.17		
Sacrament	2024	T7 Tractor	Aggregate	Aggregate	Diesel	974.1598058	75896.02217	75896.02217	0	14154.54198	0.00	12.42667686	6.11		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Sacramento
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	CVMT miles/day	EVMT miles/day	Trips trips/day	Fuel gas 1,000 gallons/day	Diesel gas 1,000 gallons/day	Miles per gallon	Gasoline miles per gallon	Diesel miles per gallon
Sacrament	2025	LDA	Aggregate	Aggregate	Gasoline	491398.2875	18017006.84	18017006.84	0	2259539.787	617.4841021	0.00	29.18	26.60	6.15
Sacrament	2025	LDT1	Aggregate	Aggregate	Gasoline	48785.93501	1547597.8	1547597.8	0	212712.1866	63.33573387	0.00	24.43		
Sacrament	2025	LDT2	Aggregate	Aggregate	Gasoline	237055.1324	8875175.116	8875175.116	0	1098484.37	375.8620765	0.00	23.61		
Sacrament	2025	T7 Tractor	Aggregate	Aggregate	Diesel	1028.071352	77318.93006	77318.93006	0	14937.87675	0.00	12.56836859	6.15		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Minor Project Health Effects Tool

Latitude	38.587036	**<-- Step 1: Input latitude (Please chose a value between 38.0 and 39.7)**
Longitude	-121.268507	**<-- Step 2: Input longitude (Please chose a value between -122.5 and -120.0)**

PM2.5 Health Endpoint	Age Range[1]	Incidences Across the Reduced Sacramento 4-km Modeling Domain Resulting from Project Emissions (per year)[2,5] (Mean)	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2] (Mean)	Percent of Background Health Incidences Across the 5-Air-District Region[3]	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
Respiratory					
Emergency Room Visits, Asthma	0 - 99	0.94	0.87	0.0047%	18419
Hospital Admissions, Asthma	0 - 64	0.061	0.057	0.0031%	1846
Hospital Admissions, All Respiratory	65 - 99	0.34	0.30	0.0015%	19644
Cardiovascular					
Hospital Admissions, All Cardiovascular (less Myocardial Infarctions)	65 - 99	0.19	0.17	0.00071%	24037
Acute Myocardial Infarction, Nonfatal	18 - 24	0.000077	0.000071	0.0019%	4
Acute Myocardial Infarction, Nonfatal	25 - 44	0.0070	0.0066	0.0022%	308
Acute Myocardial Infarction, Nonfatal	45 - 54	0.018	0.017	0.0023%	741
Acute Myocardial Infarction, Nonfatal	55 - 64	0.029	0.028	0.0022%	1239
Acute Myocardial Infarction, Nonfatal	65 - 99	0.12	0.11	0.0022%	5052
Mortality					
Mortality, All Cause	30 - 99	2.2	2.0	0.0045%	44766

Ozone Health Endpoint	Age Range[1]	Incidences Across the Reduced Sacramento 4-km Modeling Domain Resulting from Project Emissions (per year)[2,5] (Mean)	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2] (Mean)	Percent of Background Health Incidences Across the 5-Air-District Region[3]	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
Respiratory					
Hospital Admissions, All Respiratory	65 - 99	0.079	0.064	0.00032%	19644
Emergency Room Visits, Asthma	0 - 17	0.33	0.27	0.0046%	5859
Emergency Room Visits, Asthma	18 - 99	0.55	0.47	0.0037%	12560
Mortality					
Mortality, Non-Accidental	0 - 99	0.050	0.042	0.00014%	30386

1. Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the USEPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.

2. Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or “background health incidence”) values. Health effects are shown for the Reduced Sacramento 4-km Modeling Domain and the 5-Air-District Region.

3. The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, the background incidence rates cover the 5-Air-District Region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP.

4. The total number of health incidences across the 5-Air-District Region is calculated based on the modeling data. The information is presented to assist in providing overall health context.

5. The technical specifications and map for the Reduced Sacramento 4-km Modeling Domain are included in Appendix A, Table A-1 and Appendix B, Figure B-2 of the *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District.*

Sac Metro Air District Minor Project Health Effects Tool, version 2, published June 2020

Appendix E

Noise Modeling

Attenuation Calculations for Stationary Noise Sources

KEY: Orange cells are for input.

Grey cells are intermediate calculations performed by the model.

Green cells are data to present in a written analysis (output).

STEP 1: Identify the noise source and enter the reference noise level (dBA and distance).

STEP 2: Select the ground type (hard or soft), and enter the source and receiver heights.

STEP 3: Select the distance to the receiver.

Noise Source/ID	Reference Noise Level			Attenuation Characteristics				Attenuated Noise Level at Receptor		
	noise level (dBA)	@	distance (ft)	Ground Type (soft/hard)	Source Height (ft)	Receiver Height (ft)	Ground Factor	noise level (dBA)	@	distance (ft)
				hard	12	5	0.00			
				hard	12	5	0.00			
HVAC	60.0	@	20	soft	12	5	0.60	34	@	200
				soft	12	5	0.60			
				soft	12	5	0.60			
				soft	12	5	0.60			
							0.66			
							0.66			
							0.66			
							0.66			
							0.66			
							0.66			
							0.66			
							0.66			

Notes:

Estimates of attenuated noise levels do not account for reductions from intervening barriers, including walls, trees, vegetation, or structures of any type.

Computation of the attenuated noise level is based on the equation presented on pg. 12-3 and 12-4 of FTA 2006.

Computation of the ground factor is based on the equation presentd in Figure 6-23 on pg. 6-23 of FTA 2006, where the distance of the reference noise leve can be adjusted and the usage factor is not applied (i.e., the usage factor is equal to 1).

Sources:

Federal Transit Association (FTA). 2006 (May). Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06. Washington D.C. Available: <http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf>. Accessed: September 24, 2010.

Construction Source Noise Prediction Model

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold	50	90.2
Residence 1	200	78.2
Office	140	81.3

Equipment	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Excavator	85	1
Dozer	85	1
Backhoe	80	1
Grader	85	1

Ground Type	HARD
Source Height	8
Receiver Height	5
Ground Factor[2]	0.00

Predicted Noise Level [3]	L_{eq} dBA at 50 feet[3]
Excavator	85.0
Dozer	85.0
Backhoe	80.0
Grader	85.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
90.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

Construction Source Noise Prediction Model

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold	50	86.2
Residence 1	200	74.2
Office	140	77.3

Equipment	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Excavator	85	0.4
Dozer	85	0.4
Backhoe	80	0.4
Grader	85	0.4

Ground Type	HARD
Source Height	8
Receiver Height	5
Ground Factor[2]	0.00

Predicted Noise Level [3]	L_{eq} dBA at 50 feet[3]
Excavator	81.0
Dozer	81.0
Backhoe	76.0
Grader	81.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

Distance Propagation Calculations for Stationary Sources of Ground Vibration

KEY: Orange cells are for input.
Grey cells are intermediate calculations performed by the model.
Green cells are data to present in a written analysis (output).

STEP 1: Determine units in which to perform calculation.

— If vibration decibels (VdB), then use Table A and proceed to Steps 2A and 3A.
— If peak particle velocity (PPV), then use Table B and proceed to Steps 2B and 3B.

STEP 2A: Identify the vibration source and enter the reference vibration level (VdB) and distance.

STEP 3A: Select the distance to the receiver.

Table A. Propagation of vibration decibels (VdB) with distance

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
	vibration level (VdB)	@	distance (ft)	vibration level (VdB)	@	distance (ft)
Roller	94	@	25	71.6	@	140

The Lv metric (VdB) is used to assess the likelihood for vibration to result in human annoyance.

STEP 2B: Identify the vibration source and enter the reference peak particle velocity (PPV) and distance.

STEP 3B: Select the distance to the receiver.

Table B. Propagation of peak particle velocity (PPV) with distance

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
	vibration level (PPV)	@	distance (ft)	vibration level (PPV)	@	distance (ft)
Roller	0.210	@	25	0.016	@	140

The PPV metric (in/sec) is used for assessing the likelihood for the potential of structural damage.

Notes:

Computation of propagated vibration levels is based on the equations presented on pg. 185 of FTA 2018. Estimates of attenuated vibration levels do not account for reductions from intervening underground barriers or other underground structures of any type, or changes in soil type.

Federal Transit Association (FTA). 2018 (September). Transit Noise and Vibration Impact Assessment Manual. FTA Report N
https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-

Io. 0123. Washington, D.C. Accessed: December 20, 2020. Page Available:

Traffic Noise Spreadsheet Calculator

Project: **Residences at Capital Center**

Number	Name	Segment Description and Location From	To	Existing Conditions	Existing + Project Conditions	Δ Existing – Existing + Project	Cumulative Conditions	Cumulative +Project Conditions	Δ Cumulative – Cumulative + Project
Summary of Net Changes									
1	Zinfandel Dr	White Rock Rd	International Dr	72.9	72.9	0.0			
2	Zinfandel Dr	US-50 EB Ramps	White Rock Rd	75.3	75.4	0.1			
3	Zinfandel Dr	US-50 EB Ramps	US-50 WB Ramps	74.5	74.6	0.1			
4	Zinfandel Dr	Folsom Blvd	US-50 WB Ramps	73.4	73.5	0.0			
5	White Rock Rd	Zinfandel Dr	Kigore Rd	71.8	72.1	0.3			
6	White Rock Rd	Kilgore Rd	Sunrise Blvd	71.9	72.2	0.3			
7	Kilgore Rd	Folsom Blvd	White Rock Rd	68.4	68.4	0.0			
8	Kilgore Rd	White Rock Rd	International Dr	66.4	68.6	2.2			
9	White Rock Rd	Sunrise Blvd	Grant Line Rd	68.9	69.1	0.2			
10	Sunrise Blvd	White Rock Rd	Douglas Rd	76.3	76.3	0.0			
11	Sunrise Blvd	Folsom Blvd	White Rock Rd	77.8	77.9	0.1			
12	Sunrise Blvd	US-50 EB Ramps	Folsom Blvd	78.2	78.2	0.1			
13	Sunrise Blvd	US-50 WB Ramps	US-50 EB Ramps	76.7	76.8	0.1			
14	Sunrise Blvd	US-50 EB Ramps	Coloma	79.6	79.7	0.0			

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Traffic Noise Spreadsheet Calculator

Project: Residences at Capital Ce | Existing Conditions

Noise Level Descriptor: Ldn
Site Conditions: Soft
Traffic Input: Peak
Traffic K-Factor: 10

		Segment Description and Location		Input										Output				
						Distance to Directional Centerline, (feet)[4]		Traffic Distribution Characteristics										
Number	Name	From	To	Peak Hour Volume	Speed (mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	Ldn, (dBA)[5,6,7]	Distance to Contour, (feet)[3] 70 dBA	65 dBA	60 dBA	55 dBA
Existing Conditions																		
1	Zinfandel Dr	White Rock Rd	International Dr	28,910	35	80	127	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	72.9	158	340	732	1577
2	Zinfandel Dr	US-50 EB Ramps	White Rock Rd	46,520	35	73	133	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	75.3	222	479	1032	2223
3	Zinfandel Dr	US-50 EB Ramps	US-50 WB Ramps	42,770	35	83	123	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	74.5	203	437	940	2026
4	Zinfandel Dr	Folsom Blvd	US-50 WB Ramps	33,040	35	85	117	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	73.4	169	364	784	1689
5	White Rock Rd	Zinfandel Dr	Kigore Rd	10,990	45	80	125	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	71.8	132	284	611	1316
6	White Rock Rd	Kilgore Rd	Sunrise Blvd	11,170	45	80	125	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	71.9	133	287	618	1331
7	Kilgore Rd	Folsom Blvd	White Rock Rd	5,320	45	95	107	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	68.4	78	169	364	784
8	Kilgore Rd	White Rock Rd	International Dr	4,570	40	84	118	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	66.4	58	124	268	577
9	White Rock Rd	Sunrise Blvd	Grant Line Rd	5,790	45	80	130	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	68.9	86	186	401	864
10	Sunrise Blvd	White Rock Rd	Douglas Rd	26,780	45	70	120	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	76.3	242	522	1125	2423
11	Sunrise Blvd	Folsom Blvd	White Rock Rd	44,730	45	80	130	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	77.8	338	728	1568	3378
12	Sunrise Blvd	US-50 EB Ramps	Folsom Blvd	44,820	45	70	150	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	78.2	359	774	1667	3592
13	Sunrise Blvd	US-50 WB Ramps	US-50 EB Ramps	36,510	45	85	125	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	76.7	290	626	1348	2904
14	Sunrise Blvd	US-50 EB Ramps	Coloma	63,710	45	75	130	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	79.6	433	932	2008	4327
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Traffic Noise Spreadsheet Calculator

Project: Residences at Capital Cer Existing + Project Conditions

Noise Level Descriptor: Ldn
Site Conditions: Soft
Traffic Input: Peak
Traffic K-Factor: 10

	Segment Description and Location			Input										Output				
						Distance to Directional Centerline, (feet)[4]		Traffic Distribution Characteristics										
Number	Name	From	To	Peak Hour Volume	Speed (mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	Ldn, (dBA)[5,6,7]	Distance to Contour, (feet)[3] 70 dBA	65 dBA	60 dBA	55 dBA
Existing + Project Conditions																		
1	Zinfandel Dr	White Rock Rd	International Dr	28,910	35	80	127	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	72.9	158	340	732	1577
2	Zinfandel Dr	US-50 EB Ramps	White Rock Rd	47,407	35	73	133	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	75.4	225	485	1045	2251
3	Zinfandel Dr	US-50 EB Ramps	US-50 WB Ramps	43,302	35	83	123	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	74.6	204	440	948	2043
4	Zinfandel Dr	Folsom Blvd	US-50 WB Ramps	33,217	35	85	117	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	73.5	170	365	787	1695
5	White Rock Rd	Zinfandel Dr	Kigore Rd	11,877	45	80	125	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	72.1	139	299	643	1386
6	White Rock Rd	Kilgore Rd	Sunrise Blvd	11,969	45	80	125	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	72.2	139	300	647	1393
7	Kilgore Rd	Folsom Blvd	White Rock Rd	5,320	45	95	107	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	68.4	78	169	364	784
8	Kilgore Rd	White Rock Rd	International Dr	7,528	40	84	118	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	68.6	81	173	374	805
9	White Rock Rd	Sunrise Blvd	Grant Line Rd	5,997	45	80	130	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	69.1	88	191	411	885
10	Sunrise Blvd	White Rock Rd	Douglas Rd	26,780	45	70	120	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	76.3	242	522	1125	2423
11	Sunrise Blvd	Folsom Blvd	White Rock Rd	45,322	45	80	130	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	77.9	341	734	1582	3407
12	Sunrise Blvd	US-50 EB Ramps	Folsom Blvd	45,412	45	70	150	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	78.2	362	781	1682	3624
13	Sunrise Blvd	US-50 WB Ramps	US-50 EB Ramps	36,998	45	85	125	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	76.8	293	631	1360	2930
14	Sunrise Blvd	US-50 EB Ramps	Coloma	64,095	45	75	130	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	79.7	434	936	2017	4345
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Citation #	Citations	
1	Caltrans Technical Noise Supplement. 2009 (November). Table (5-11), Pg 5-60.	Caltrans Technical Noise Supplement. 2013 (September). Table (4-2), Pg 4-17
2	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-26), Pg 5-60.	Caltrans Technical Noise Supplement. 2013 (September). Equation (4-5), Pg 4
3	Caltrans Technical Noise Supplement. 2009 (November). Equation (2-16), Pg 2-32.	FHWA 2004 TNM Version 2.5
4	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-11), Pg 5-47, 48.	FHWA 2004 TNM Version 2.5
5	Caltrans Technical Noise Supplement. 2009 (November). Equation (2-26), Pg 2-55, 56.	Caltrans Technical Noise Supplement. 2013 (September). Equation (2-23), Pg
6	Caltrans Technical Noise Supplement. 2009 (November). Equation (2-27), Pg 2-57.	Caltrans Technical Noise Supplement. 2013 (September). Equation (2-24), Pg
7	Caltrans Technical Noise Supplement. 2009 (November). Pg 2-53.	Caltrans Technical Noise Supplement. 2013 (September). Pg 2-57.
8	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-7), Pg 5-45.	FHWA 2004 TNM Version 2.5
9	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-8), Pg 5-45.	FHWA 2004 TNM Version 2.5
10	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-9), Pg 5-45.	FHWA 2004 TNM Version 2.5
11	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-13), Pg 5-49.	FHWA 2004 TNM Version 2.5
12	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-14), Pg 5-49.	FHWA 2004 TNM Version 2.5
13	Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (16), Pg 67	
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15	Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (18), Pg 69	

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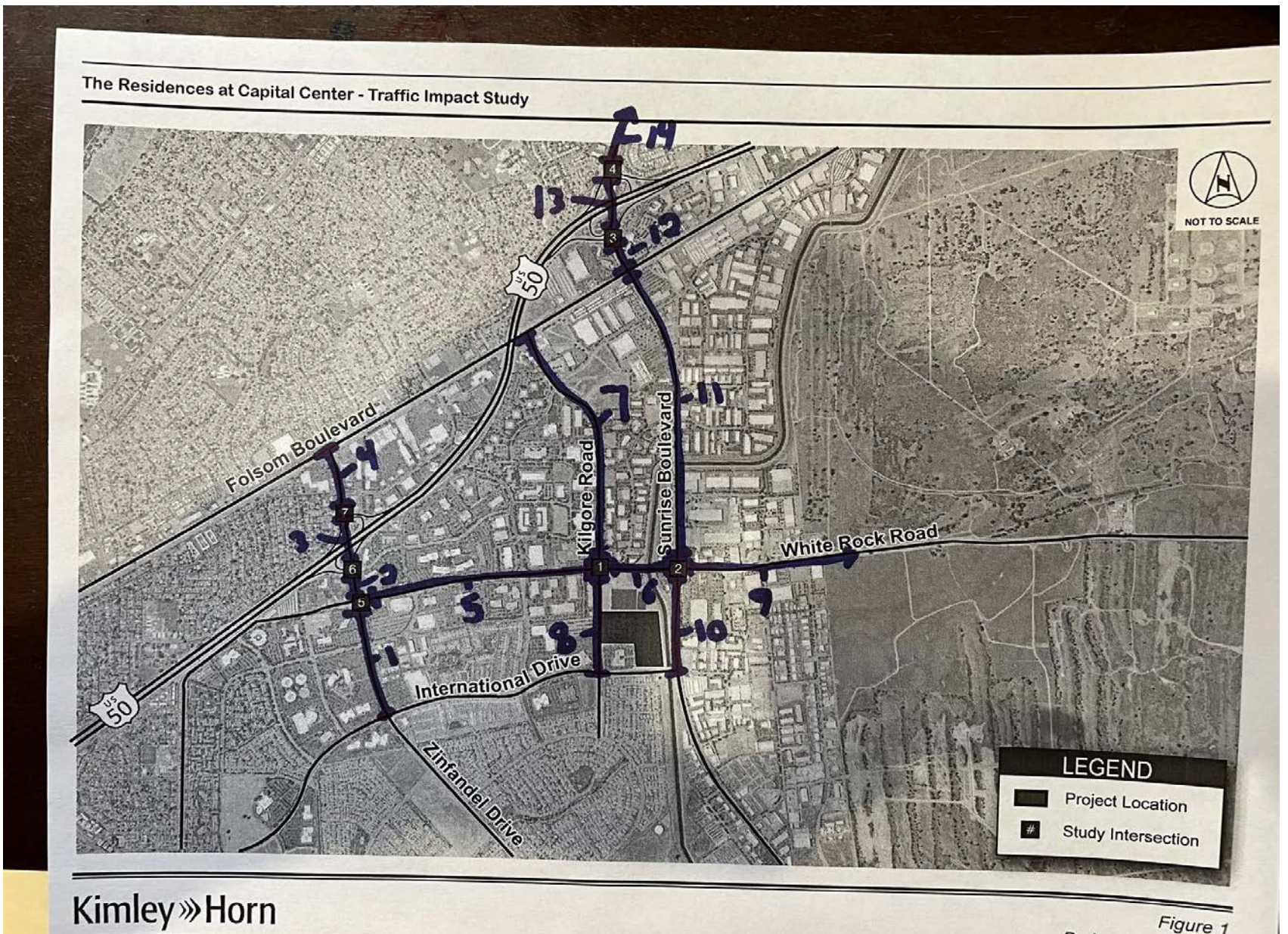

Existing Volumes

Segment	From	To	Volume
1	White Rock Rd	International Dr	28910
2	US-50 EB Ramps	White Rock Rd	46520
3	US-50 EB Ramps	US-50 WB Ramps	42770
4	Folsom Blvd	US-50 WB Ramps	33040
5	Zinfandel Dr	Kigore Rd	10990
6	Kilgore Rd	Sunrise Blvd	11170
7	Folsom Blvd	White Rock Rd	5320
8	White Rock Rd	International Dr	4570
9	Sunrise Blvd	Grant Line Rd	5790
10	White Rock Rd	Douglas Rd	26780
11	Folsom Blvd	White Rock Rd	44730
12	US-50 EB Ramps	Folsom Blvd	44820
13	US-50 WB Ramps	US-50 EB Ramps	36510
14	US-50 EB Ramps	Coloma	63710

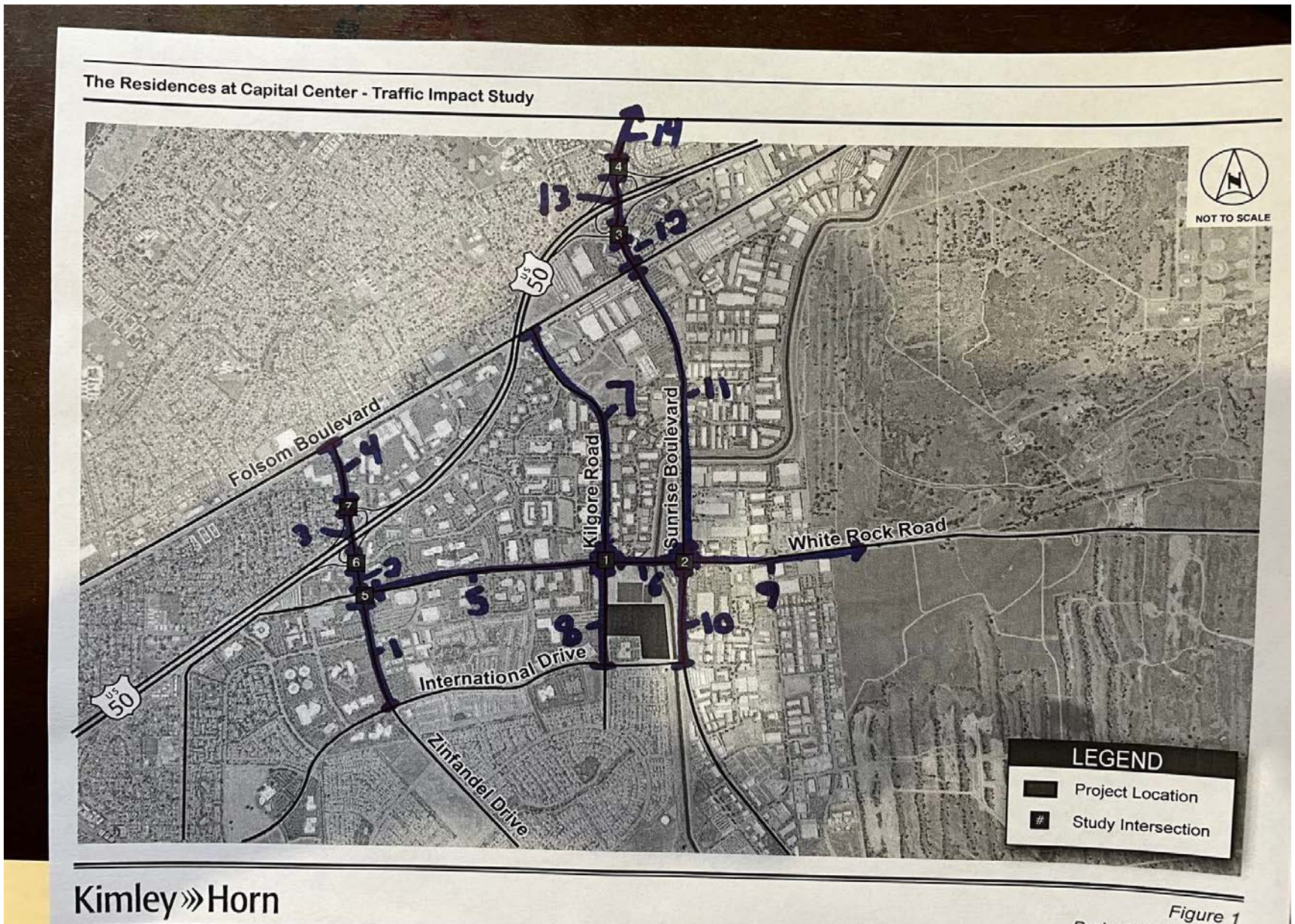

Figure 1
Project Vicinity Map

Existing + Project Volumes

Segment	From	To	Volume
1	White Rock Rd	International Dr	28910
2	US-50 EB Ramps	White Rock Rd	47407
3	US-50 EB Ramps	US-50 WB Ramps	43302
4	Folsom Blvd	US-50 WB Ramps	33217
5	Zinfandel Dr	Kigore Rd	11877
6	Kilgore Rd	Sunrise Blvd	11969
7	Folsom Blvd	White Rock Rd	5320
8	White Rock Rd	International Dr	7528
9	Sunrise Blvd	Grant Line Rd	5997
10	White Rock Rd	Douglas Rd	26780
11	Folsom Blvd	White Rock Rd	45322
12	US-50 EB Ramps	Folsom Blvd	45412
13	US-50 WB Ramps	US-50 EB Ramps	36998
14	US-50 EB Ramps	Coloma	64095

Traffic Impact Study

Residences at Capital Center
City of Rancho Cordova, California

August 11, 2022

Prepared for:

Cole Partners Development Company

Prepared by:
Kimley»Horn

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Sacramento, California 95814

Phone: (916) 858-5800

EXECUTIVE SUMMARY

This report documents the results of a traffic impact study completed for Residences at Capitol Center project (the "proposed project" or "project"). The proposed project will be located on the vacant parcel located at the northeast corner of the Kilgore Road intersection with Crawford Dive in Rancho Cordova, California. This study was performed in accordance with the standards established by the Circulation Element of the City of Rancho Cordova's General Plan.

The proposed project will include 417 multi-family units, of which 177 will be townhomes and 240 will be apartments. In addition, the project will include a commercial component that will cover up to 9,000 square-feet of floor space. Access to the project site will be provided via two full access driveways, one located on Crawford Drive and the other on Kilgore Road.

This analysis includes evaluation of the following transportation facilities:

1. Kilgore Rd @ White Rock Rd
2. Sunrise Blvd @ White Rock Rd
3. Sunrise Blvd @ US-50 EB Ramps
4. Sunrise Blvd @ US-50 WB Ramps
5. Zinfandel Dr @ White Rock Rd
6. Zinfandel Dr @ US-50 EB Ramps
7. Zinfandel Dr @ US-50 WB Ramps

This traffic impact analysis was conducted for the study facilities listed above for the following scenarios:

A. Existing (2022) Conditions
B. Opening Year (2024) plus Proposed Project Conditions
C. Cumulative (2040) Conditions
D. Cumulative (2040) plus Proposed Project Conditions

Significant findings of this study include:

- The proposed project is anticipated to generate 3,220 new daily trips, with 253 and 268 trips occurring during the AM and PM peak-hours, respectively.
    - Internal trip reduction to assess how the project's residential and proximate commercial component trips might interact was generated using the NCHRP 684 Trip Capture Estimation Tool[1]. This resulted in a reduction of 262 daily trips, 20 AM peak-hour trips, and 24 PM peak-hour trips.
    - The final net external Project trip generation is 2,958 daily trips, 233 AM peak-hour trips, and 244 PM peak-hour trips.
- The addition of the proposed project to the Opening Year and Cumulative scenarios does not result in deficiencies at any of the study intersections. All study intersections operate within the acceptable Level of Service (LOS) threshold established by the City of Rancho Cordova's General Plan.
- The addition of the proposed project to Opening Year and Cumulative scenarios does not result in significant queueing deficiencies at any of the US-50 off-ramps. Current ramp lengths are sufficient to accommodate vehicles without creating vehicle spillback into the traveled way of US-50 at all study intersection locations.

[1] *Trip Generation Handbook (3rd Edition)*, Institute of Transportation Engineers (ITE), August 2014

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INTRODUCTION

This report documents the results of a traffic impact study completed for the Residences at Capitol Center project (the "proposed project" or "project"). The proposed project will be located on the vacant parcel located at the northeast corner of the Kilgore Road intersection with Crawford Dive in Rancho Cordova, California. The purpose of this impact analysis is to identify potential environmental impacts to transportation facilities as required by the California Environmental Quality Act (CEQA). This study was performed in accordance with the standards established by the Circulation Element of the City of Rancho Cordova's General Plan[2].

PROJECT DESCRIPTION

The proposed project will include 417 multi-family units of which 177 will be townhomes and 240 will be apartments. In addition, the Project will include a commercial component that will cover up to 9,000 square-feet of floor space. Access to the project site will be provided via two full access driveways, one on Crawford Drive and one on Kilgore Road.

The project location, study intersections and study segments are depicted in **Figure 1.** The proposed project site plan is shown in **Figure 2**. **Figure 3** illustrates the existing study intersections facilities, traffic control, and lane configurations.

This traffic impact study was conducted for the following scenarios:

A. Existing (2022) Conditions
B. Opening Year (2024) plus Proposed Project Conditions
C. Cumulative (2040) Conditions
D. Cumulative (2040) plus Proposed Project Conditions

The following transportation facilities are included in this evaluation:

1. Kilgore Rd @ White Rock Rd
2. Sunrise Blvd @ White Rock Rd
3. Sunrise Blvd @ US-50 EB Ramps
4. Sunrise Blvd @ US-50 WB Ramps
5. Zinfandel Dr @ White Rock Rd
6. Zinfandel Dr @ US-50 EB Ramps
7. Zinfandel Dr @ US-50 WB Ramps

[2] *City of Rancho Cordova General Plan: Circulation Element, May 2015,* City of Rancho Cordova

Kimley»Horn

Figure 1
Project Vicinity Map

PROJECT SUMMARY

GROSS AREA	+/-22.9 ac
TOTAL UNITS	417 units
DENSITY	+/-18.3 du/ac
OPEN AIR COMMUNITY BEER GARDEN	0.72 ac
COMMERCIAL PARKING	55 spaces

TOWN-HOMES SUMMARY

TOTAL UNITS	177 units
GARAGES	354 spaces
SURFACE PARKING	85 spaces
TOTAL PARKING	439 spaces
RATIO	+/-2.48

APARTMENT SUMMARY

TOTAL UNITS	240 units
CARPORT	240 spaces
SURFACE PARKING	203 spaces
TOTAL PARKING	443 spaces
RATIO	+/- 1.85

1 New Pedestrian Connection Cross Walk

2 Promenade Entrance

3 Club House Entry

4 Townhomes Clubhouse
Leasing Office
+/-6,000 sf.
1 Story
Fitness
Pool, Spa

5 Open Air Community Beer Garden
+/-0.72 ac
+/-3,425 sf Building Coverage
+/-5,400 sf Outdoor Seating

6 Townhomes
+/-9.93 ac
17.82 du/ac
177 Units
Front loaded & Rear loaded
2.48 Parking Ratio

7 Open Space

8 Internal Pedestrian Connection Trail

9 Multi-Family Main Entry

10 Multi-Family
+/-8.71 ac
27.55 du/ac
240 units
24plex & 36plex
1.85 parking ratio

11 Multi-Family leasing office
Fitness
+/-6,000 sf.
2 story

12 Emergency Vehicular Access

13 Multi-Family
Bldg A
24plex
3 Story

14 Multi-Family
Bldg B
36 plex
3 Story

OVERALL SITE PLAN

0 60' 120' 240'
Scale: 1" = 60' (on 24x36 sheet)

GRUPE

COLE PARTNERS DEVELOPMENT COMPANY

A0.01

OVERALL SITE PLAN

THE RESIDENCES AT CAPITAL CENTER

Rancho Cordova, CA

BSB DESIGN

The drawings presented are illustrative of character and design intent only, and are subject to change based upon final design considerations (i.e. applicable codes, structural, and MEP design requirements, unit plan / floor plan changes, etc.) © 2021 BSB Design, Inc.

November 19, 2021 | MR200458.00

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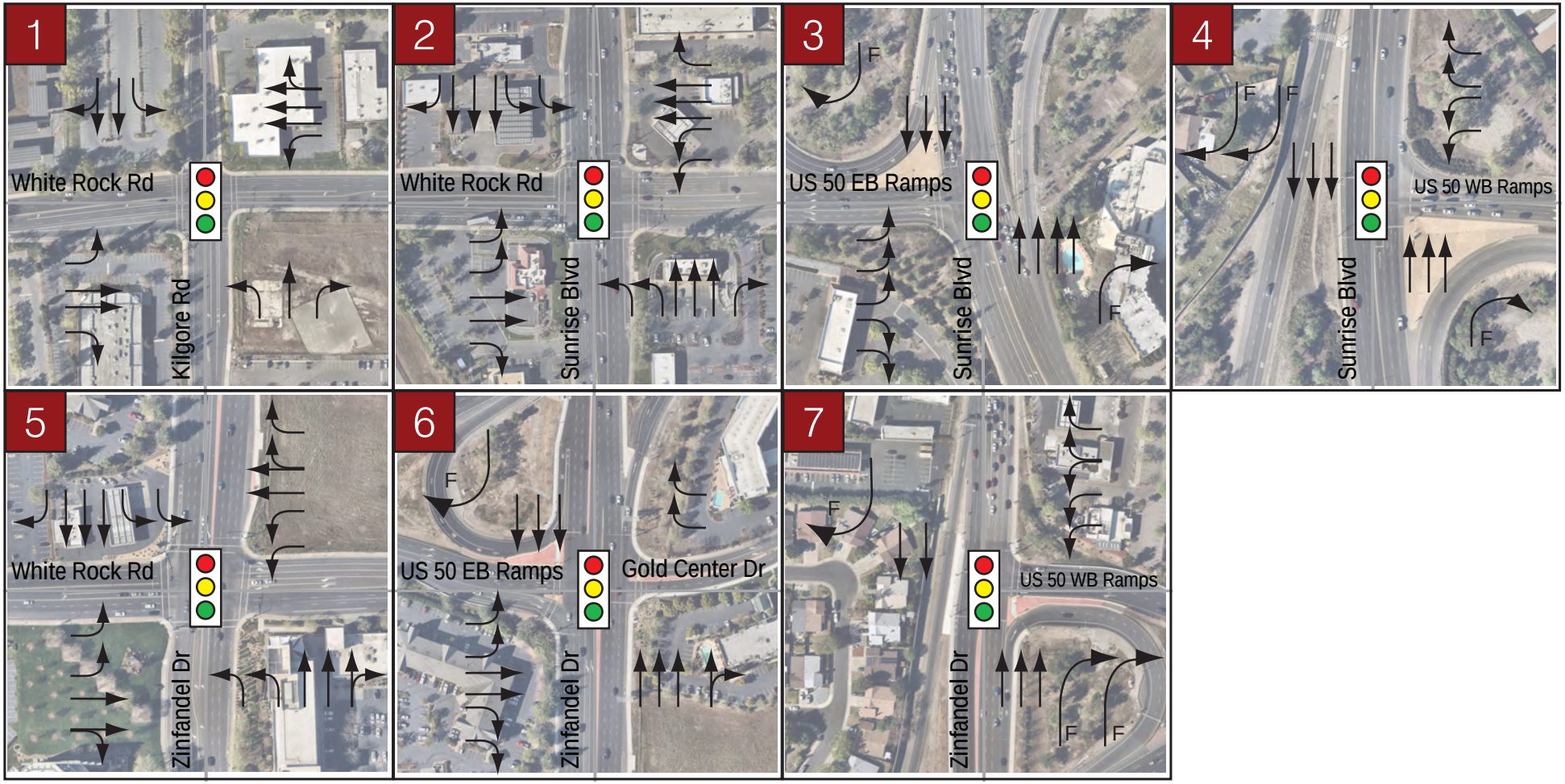
Figure 2
Project Site Plan



LEGEND	
#	Study Intersection
	Signalized Intersection
F	Free Movement

Kimley»Horn

Figure 3
Study Intersections, Traffic Control, and Lane Geometry

PROJECT AREA ROADWAYS

The following are descriptions of primary roadways in the project vicinity:

US Route 50 (US-50) is an east-west freeway facility located approximately three quarters of a mile north of the proposed project. US-50 connects Rancho Cordova with Sacramento to the west and El Dorado County to the east. Primary access to the project site from US-50 is provided at the Sunrise Boulevard and Zinfandel Drive interchanges. US-50 carries approximately 124,000 vehicles per day[3] with five lanes in each direction proximate to these two interchanges.

Sunrise Boulevard is a north-south arterial east of the project site across the Folsom South Canal. It connects the project site to north Rancho Cordova and Placer County while providing access to US-50. Numerous commercial developments are located along Sunrise Boulevard both north and south of the project site.

Zinfandel Drive is a north-south arterial connecting the project site to US-50 as well as the commercial, industrial, and residential areas northwest of the project site.

White Rock Road is an east-west arterial connecting Sunrise Boulevard and Zinfandel Drive within the southern half of Rancho Cordova's city limits.

TRANSPORTATION IMPACT STUDY METHODOLOGY

This study was performed in accordance with the standards established by the Circulation Element of the City of Rancho Cordova's General Plan[4]. As the Project and associated study intersections fall within the City of Rancho Cordova, Level of Service (LOS) D will be used as the threshold for evaluating acceptable intersection operations consistent with the City's General Plan criteria.

Level of Service Definitions

Analysis of transportation facility significant environmental impacts is based on the concept of Level of Service (LOS). The LOS of a facility is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity.

Intersection Analysis

Levels of Service for this study were determined using methods defined in the *Highway Capacity Manual (HCM) 6th Edition* and appropriate traffic analysis software. The HCM includes procedures for analyzing side-street stop controlled (SSSC), all-way stop controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement. The AWSC and signalized intersection procedure defines LOS as a function of average control delay for the intersection as a whole. Table 1 presents intersection LOS definitions as defined in the HCM.

[3] Caltrans Traffic Counts, 2020. http://www.dot.ca.gov/trafficops/census/
[4] *City of Rancho Cordova General Plan: Circulation Element, May 2015,* City of Rancho Cordova

Table 1 – Intersection Level of Service Criteria

Level of Service (LOS)	Unsignalized	Signalized
	Average Control Delay* (sec/veh)	Average Control Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F	> 50	> 80

Source: Highway Capacity Manual, 2010
* Applied to the worst lane/lane group(s) for SSSC

ASSESSMENT OF PROPOSED PROJECT

Proposed Project Trip Generation and Assignment

The number of trips anticipated to be generated by the proposed project in both Opening Year and Cumulative conditions was approximated using data included in the *Trip Generation Manual, 11th Edition,* published by the Institute of Transportation Engineers (ITE). ITE Land Use Code 220 (Multifamily Housing (Low-Rise)) was used to represent the project's townhome development component, while ITE Land Use Code 221 (Multifamily Housing (Mid-Rise)) was used to represent the project's apartment development component. ITE Land Use Code 932 (High-Turnover (Sit-Down) Restaurant) was used to represent the commercial component of the project. Regression equations provided by ITE were used to estimate the number of trips anticipated to be generated by the project's residential components while ITE's average rate was used to estimate the number of trips for the project's non-residential component as an equation was not available. Trips generated by the proposed project are presented in Table 2.

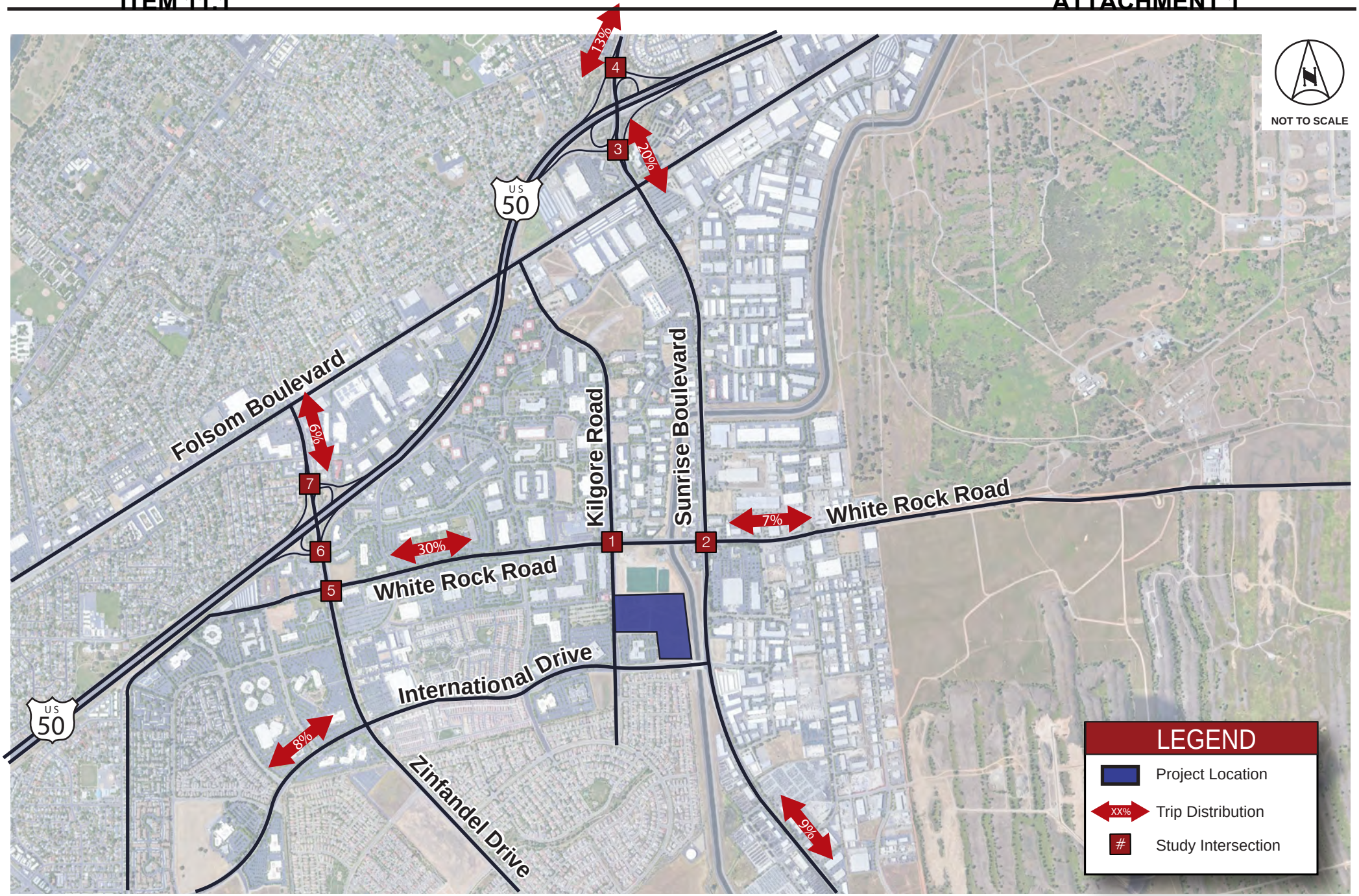
Table 2 – Proposed Project Trip Generation

ITE Land Use Code	Land Use	# Units/ ksf	Daily Trips	AM Peak-Hour			PM Peak-Hour		
				Total	In	Out	Total	In	Out
220	Multifamily Housing (Low-Rise)	177	1,210	78	19	59	97	61	36
221	Multifamily Housing (Mid-Rise)	240	1,098	94	22	72	94	57	37
932	High-Turnover (Sit-Down) Restaurant	9	911	81	45	36	77	47	30
Total Project Trips			**3,220**	**253**	**86**	**167**	**268**	**165**	**103**
Internal Capture (8% Daily/AM Peak-hour, 9% PM Peak-hour)			262	20	10	10	24	12	12
Net External Project Trips			***2,958***	***233***	***76***	***157***	***244***	***153***	***91***

As shown in Table 2, the proposed project is estimated to generate 3,220 new daily trips, with 253 and 268 trips occurring during the respective AM and PM peak-hours. Internal trip reduction to assess how the project's residential and commercial component trips might interact was generated using the NCHRP 684 Trip Capture Estimation Tool[5]. This resulted in a reduction of 262 daily trips, 20 AM peak-hour trips, and 24 PM peak-hour trips. The final net external Project trip generation is 2,958 daily trips, 233 AM peak-hour trips, and 244 PM peak-hour trips.

Project trip distribution was developed using the City of Rancho Cordova's travel demand model. The proposed project was added to the model and the socioeconomic characteristics of the population living in the development along Tower Park Drive, west of Prospect Park Drive, were used to develop the socioeconomic characteristics of the population assumed to occupy the proposed Project. Trip distribution percentages developed from the model run are illustrated in Figure 4.

[5] *Trip Generation Handbook (3rd Edition)*, Institute of Transportation Engineers (ITE), August 2014



Kimley»Horn

Figure 3
Project Trip Distribution and Study Facilities

LEVEL OF SERVICE (LOS) ANALYSIS

Table 3 and Table 4 summarize the peak-hour LOS results for each respective analysis scenario. Analysis worksheets are included in Appendix C to Appendix F. As the project and associated study intersections fall within the City of Rancho Cordova boundary, LOS D was used as the threshold for evaluating acceptable operations. Figure 5, Figure 6, Figure 7, Figure 8, and Figure 9 display intersection turning movement volumes used for each analysis scenario.

Table 3 – Existing (2022) and Opening Year (2024) plus Project Intersection LOS Analysis

ID	Intersection	Control	Peak Hour	Existing (2022)		Opening Year (2024) Plus Project	
				Delay (sec)	LOS	Delay (sec)	LOS
1	Kilgore Rd @ White Rock Rd	Signal	AM	15.6	B	15.8	B
			PM	16.8	B	16.6	B
2	Sunrise Blvd @ White Rock Rd	Signal	AM	23.1	C	23.7	C
			PM	37.5	D	37.3	D
3	Sunrise Blvd @ US-50 EB Ramps	Signal	AM	18.7	B	18.9	B
			PM	19.9	B	21.0	C
4	Sunrise Blvd @ US-50 WB Ramps	Signal	AM	9.9	A	10.5	B
			PM	11.9	B	13.0	B
5	Zinfandel Dr @ White Rock Rd	Signal	AM	26.3	C	28.9	C
			PM	30.3	C	31.3	C
6	Zinfandel Dr @ US-50 EB Ramps	Signal	AM	17.0	B	18.3	B
			PM	16.4	B	18.1	B
7	Zinfandel Dr @ US-50 WB Ramps	Signal	AM	13.8	B	14.8	B
			PM	9.0	A	8.9	A

Notes: **Bold** represents unacceptable operations.

Table 4 – Cumulative (2040) and Cumulative (2040) plus Project Intersection LOS Analysis

ID	Intersection	Control	Peak Hour	Cumulative (2040)		Cumulative (2040) Plus Project	
				Delay (sec)	LOS	Delay (sec)	LOS
1	Kilgore Rd @ White Rock Rd	Signal	AM	17.8	B	18.7	B
			PM	23.1	C	25.5	C
2	Sunrise Blvd @ White Rock Rd	Signal	AM	29.5	C	30.3	C
			PM	42.0	D	42.8	D
3	Sunrise Blvd @ US-50 EB Ramps	Signal	AM	18.9	B	18.8	B
			PM	20.4	C	20.7	C
4	Sunrise Blvd @ US-50 WB Ramps	Signal	AM	10.8	B	10.7	B
			PM	12.6	B	12.0	B
5	Zinfandel Dr @ White Rock Rd	Signal	AM	32.9	C	30.6	C
			PM	43.5	D	51.7	D
6	Zinfandel Dr @ US-50 EB Ramps	Signal	AM	21.7	C	23.0	C
			PM	20.2	C	22.7	C
7	Zinfandel Dr @ US-50 WB Ramps	Signal	AM	13.3	B	13.5	B
			PM	10.4	B	10.5	B

Notes: **Bold** represents unacceptable operations.

The LOS analysis summarized in the tables above show that all study intersections operate within the acceptable standard of LOS D under all analysis scenarios. Intersections analyzed using HCM 6th Edition methodology were also assessed using HCM 2000 methodology for comparison. The HCM 2000

methodology yielded comparable results to the HCM 6th edition. The HCM 2000 reports are included in the relevant appendices for all scenarios.

Peak-Hour Traffic Signal Warrant Evaluation

A planning level assessment of the need for traffic signalization was performed for the unsignalized project driveway at Kilgore Road. This evaluation was performed consistent with the peak-hour warrant methodologies noted in Section 4C of the *California Manual on Uniform Traffic Control Devices (CAMUTCD)*, dated March 30, 2021. A summary of the peak-hour warrant results is presented in Table 5. As shown in Table 5, the peak-hour signal warrant is not satisfied under all analysis scenarios. Detailed results of this analysis are presented in Appendix B.

Table 5 – Traffic Signal Warrant Analysis Results

Intersection	Scenario	Peak Hour	Signal Warranted?
Kilgore Road and Project Driveway	Opening Year Plus Project	AM	No
		PM	No
	Cumulative Year	AM	No
		PM	No
	Cumulative Year Plus Project	AM	No
		PM	No

Queuing Analysis Results

Ramp Queuing

Vehicle queuing was evaluated at each US-50 interchange off-ramp for the analysis scenarios as summarized in Table 6 using the 95th percentile queue as calculated using the SimTraffic software package. Analysis worksheets are provided in Appendix C to Appendix F for the respective analysis scenarios.

Table 6 presents the queuing analysis results at the US-50 interchange with Sunrise Boulevard (Study Intersections #3 and #4) and the US-50 interchange with Zinfandel Dr (Study Intersections #6 and #7). As shown in Table 6, the off-ramps have capacity to contain projected queues under all study scenarios.

Study Intersection Queuing

Table 7 presents queuing analysis results at the remaining non-US-50 interchange ramp project study intersections (Study Intersections #1, #2, and #5). Table 7 specifically summarizes left-turn movements to which the project is anticipated to add trips. As shown in Table 7, queuing exceeds the available storage for the westbound left movement at the Kilgore Road intersection with White Rock Road (Intersection #1) during the PM peak-hour for Cumulative plus Project conditions. While the Cumulative plus Project PM peak-hour conditions results in a notable increase in queue length beyond the no project condition, this can be reduced by reallocating signal time to more efficiently accommodate the needs to the westbound left movement.

Table 6 – US-50 Off-ramps @ Study Intersections Queuing Analysis Results

Intersection / Analysis Scenario	Movement	AM Peak-Hour		PM Peak-Hour	
		Available Storage (ft)	95th % Queue (ft)	Available Storage (ft)	95th % Queue (ft)
#3, Sunrise Blvd @ US-50 EB Off Ramp	EBL				
Existing (2022)		1730	300	1730	350
Opening Year (2024) plus Proposed Project			325		375
Cumulative (2040)			300		375
Cumulative (2040) plus Proposed Project			300		375
	EBR				
Existing (2022)		1730	127	1730	125
Opening Year (2024) plus Proposed Project			136		125
Cumulative (2040)			190		175
Cumulative (2040) plus Proposed Project			203		175
#4, Sunrise Blvd @ US-50 WB Off Ramp	WBL				
Existing (2022)		1580	125	1580	150
Opening Year (2024) plus Proposed Project			125		150
Cumulative (2040)			125		150
Cumulative (2040) plus Proposed Project			125		125
	WBR				
Existing (2022)		1580	125	1580	175
Opening Year (2024) plus Proposed Project			125		175
Cumulative (2040)			125		175
Cumulative (2040) plus Proposed Project			125		175
#6, Zinfandel Dr @ US-50 EB Off Ramp / Gold Center Dr	EBL				
Existing (2022)		1030	175	1030	300
Opening Year (2024) plus Proposed Project			200		325
Cumulative (2040)			200		325
Cumulative (2040) plus Proposed Project			175		325
	EBT				
Existing (2022)		1030	375	1030	100
Opening Year (2024) plus Proposed Project			400		150
Cumulative (2040)			625		350
Cumulative (2040) plus Proposed Project			650		550
	EBR				
Existing (2022)		1030	350	1030	250
Opening Year (2024) plus Proposed Project			375		300
Cumulative (2040)			375		350
Cumulative (2040) plus Proposed Project			375		375
#7, Zinfandel Dr @ US-50 WB Off Ramp	WBL				
Existing (2022)		1085	250	1085	175
Opening Year (2024) plus Proposed Project			250		175
Cumulative (2040)			250		200
Cumulative (2040) plus Proposed Project			250		200
	WBR				
Existing (2022)		1085	250	1085	175
Opening Year (2024) plus Proposed Project			250		175
Cumulative (2040)			250		200
Cumulative (2040) plus Proposed Project			250		200

Source: *Highway Capacity Manual (HCM) 2016* methodology per Synchro© v11/Simtraffic.
Notes: For approaches with dual turn lanes, the longest queue length is reported.
*95th Percentile Queue, shaded cell indicates queue exceeds storage by > 25' (one vehicle length)

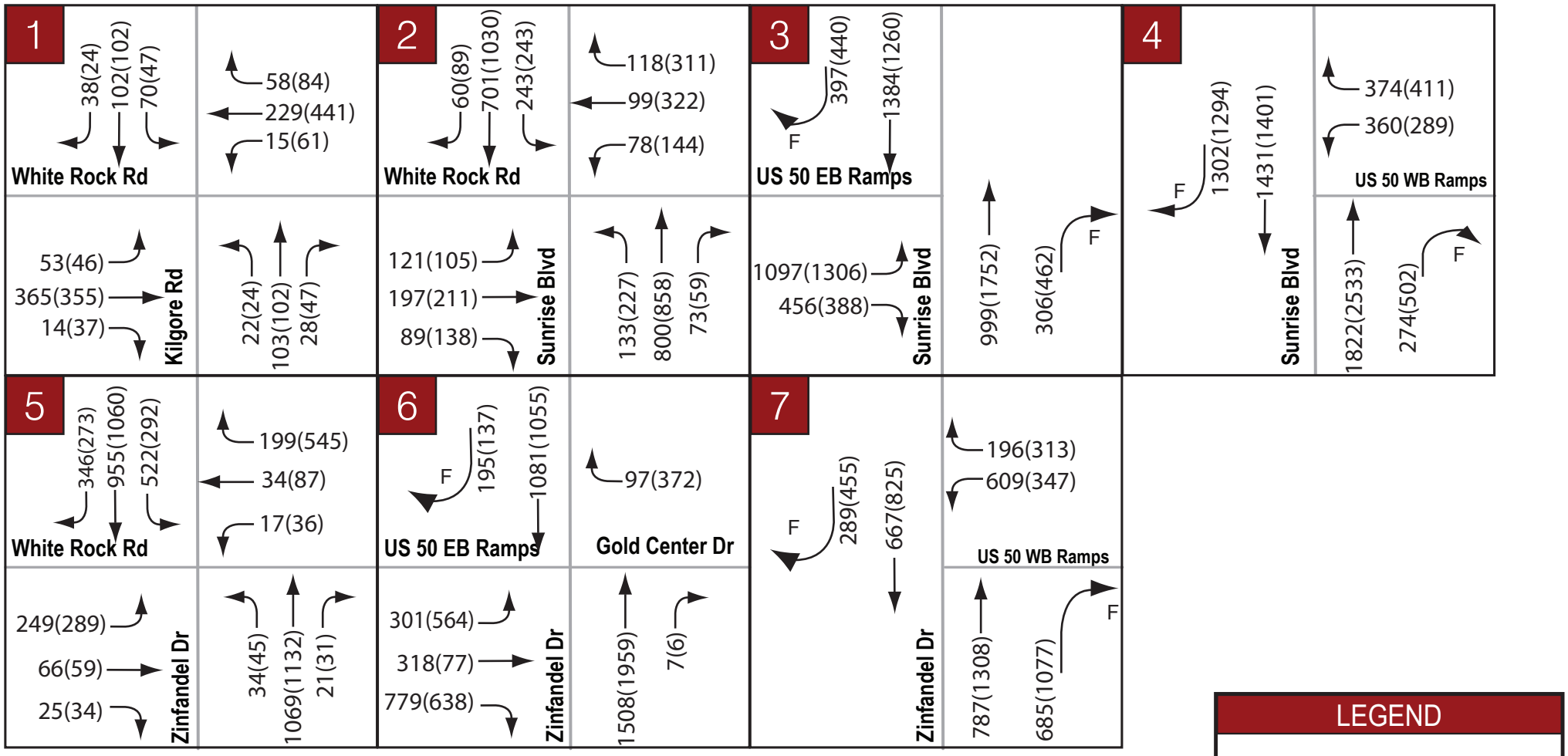
Table 7 – Study Intersection Queuing Analysis Results

Intersection / Analysis Scenario	Movement	AM Peak-Hour		PM Peak-Hour	
		Available Storage (ft)	95th % Queue (ft)	Available Storage (ft)	95th % Queue (ft)
#1, Kilgore Rd @ White Rock Rd	**NBL**				
Existing (2022)		190	25	190	50
Opening Year (2024) plus Proposed Project			75		75
Cumulative (2040)			75		100
Cumulative (2040) plus Proposed Project			125		150
	EBL				
Existing (2022)		310	50	310	50
Opening Year (2024) plus Proposed Project			75		75
Cumulative (2040)			100		100
Cumulative (2040) plus Proposed Project			100		125
	SBL				
Existing (2022)		140	75	140	50
Opening Year (2024) plus Proposed Project			75		50
Cumulative (2040)			75		75
Cumulative (2040) plus Proposed Project			100		75
	WBL				
Existing (2022)		210	25	210	75
Opening Year (2024) plus Proposed Project			50		100
Cumulative (2040)			100		225
Cumulative (2040) plus Proposed Project			125		275
#2, Sunrise Blvd @ White Rock Rd	**NBL**				
Existing (2022)		365	100	365	200
Opening Year (2024) plus Proposed Project			100		200
Cumulative (2040)			250		275
Cumulative (2040) plus Proposed Project			275		275
	EBL				
Existing (2022)		325	75	325	100
Opening Year (2024) plus Proposed Project			100		125
Cumulative (2040)			175		200
Cumulative (2040) plus Proposed Project			200		200
	SBL				
Existing (2022)		325	125	325	200
Opening Year (2024) plus Proposed Project			150		200
Cumulative (2040)			175		225
Cumulative (2040) plus Proposed Project			175		225
	WBL				
Existing (2022)		220	75	220	125
Opening Year (2024) plus Proposed Project			75		150
Cumulative (2040)			75		150
Cumulative (2040) plus Proposed Project			75		150

Source: *Highway Capacity Manual (HCM) 2016* methodology per Synchro© v11/Simtraffic.
Notes: For approaches with dual turn lanes, the longest queue length is reported.
*Minimal 95th Percentile Queue, shaded cell indicates queue exceeds storage by > 25' (one vehicle length)

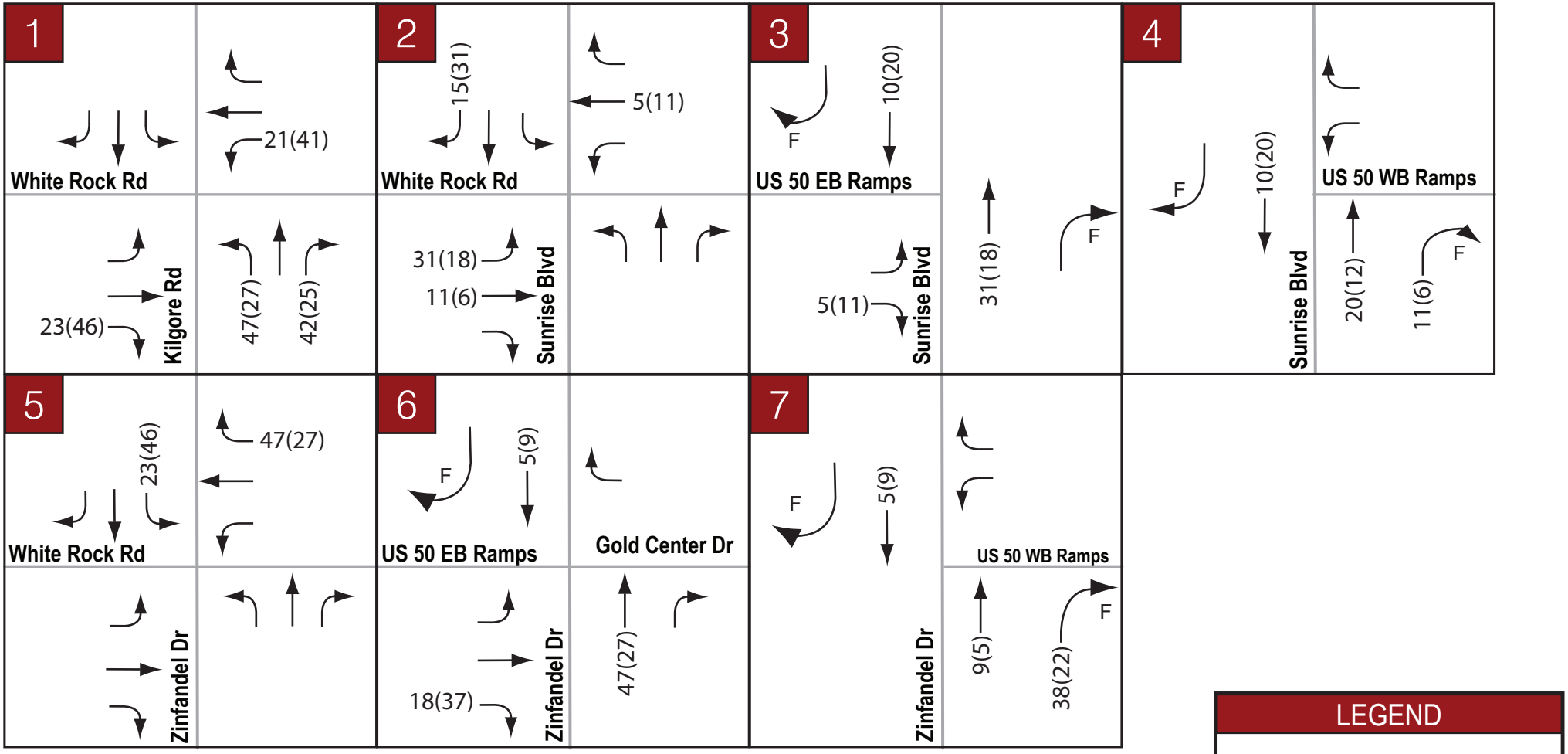
Intersection / Analysis Scenario	Movement	AM Peak-Hour		PM Peak-Hour	
		Available Storage (ft)	95th % Queue (ft)	Available Storage (ft)	95th % Queue (ft)
#5, Zinfandel Dr @ White Rock Road	NBL				
Existing (2022)		180	100	180	150
Opening Year (2024) plus Proposed Project			125		150
Cumulative (2040)			150		200
Cumulative (2040) plus Proposed Project			125		200
	EBL				
Existing (2022)		350	200	350	250
Opening Year (2024) plus Proposed Project			225		250
Cumulative (2040)			250		250
Cumulative (2040) plus Proposed Project			200		275
	SBL				
Existing (2022)		485	275	485	200
Opening Year (2024) plus Proposed Project			300		225
Cumulative (2040)			300		375
Cumulative (2040) plus Proposed Project			300		475
	WBL				
Existing (2022)		325	75	325	75
Opening Year (2024) plus Proposed Project			50		75
Cumulative (2040)			100		150
Cumulative (2040) plus Proposed Project			100		150

Source: *Highway Capacity Manual (HCM) 2016* methodology per Synchro© v11/Simtraffic.
Notes: For approaches with dual turn lanes, the longest queue length is reported.
*Minimal 95th Percentile Queue, shaded cell indicates queue exceeds storage by > 25' (one vehicle length)



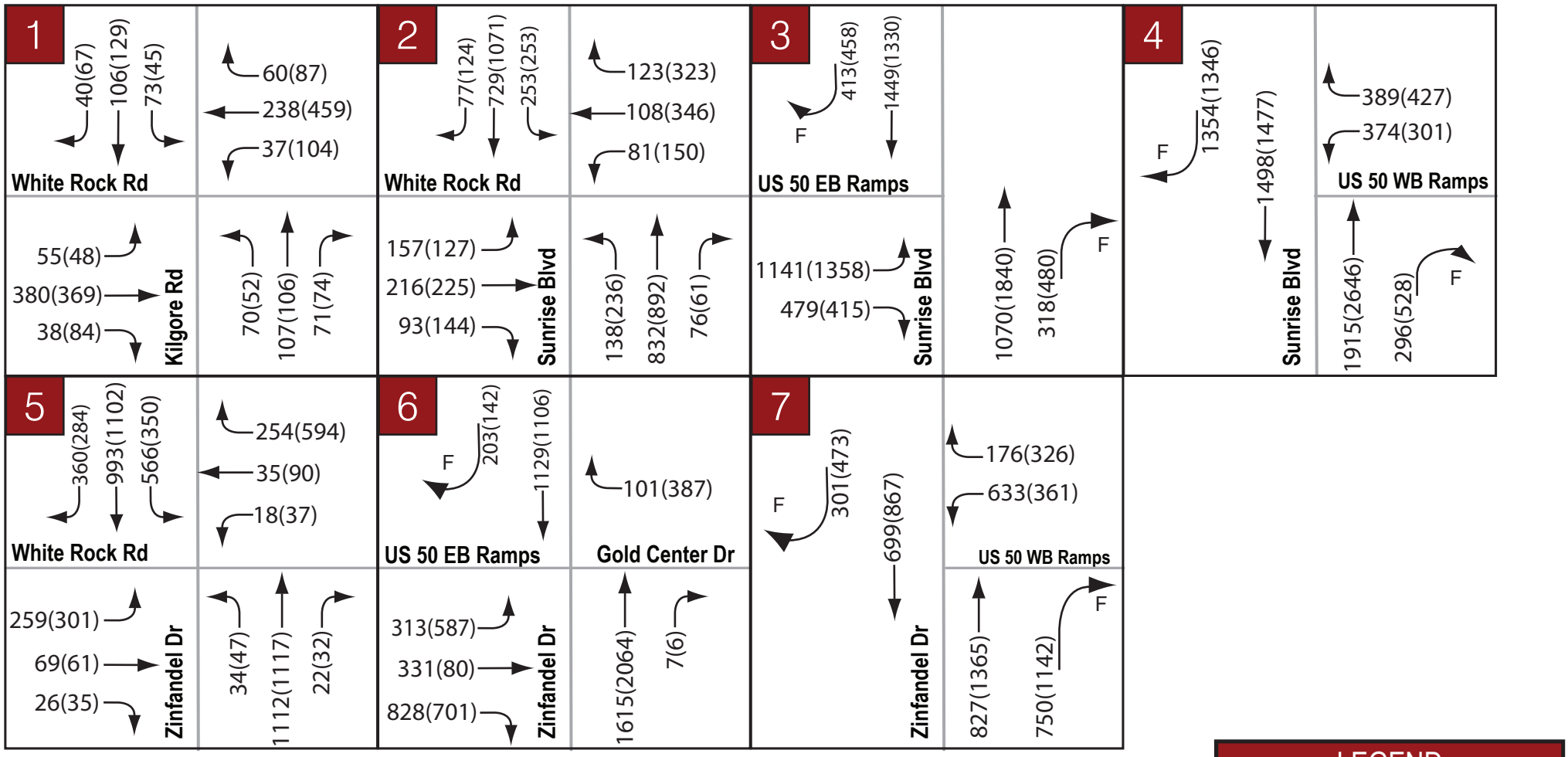
Kimley»Horn

Figure 5
Existing (2022) Peak-Hour Traffic Volumes



Kimley»Horn

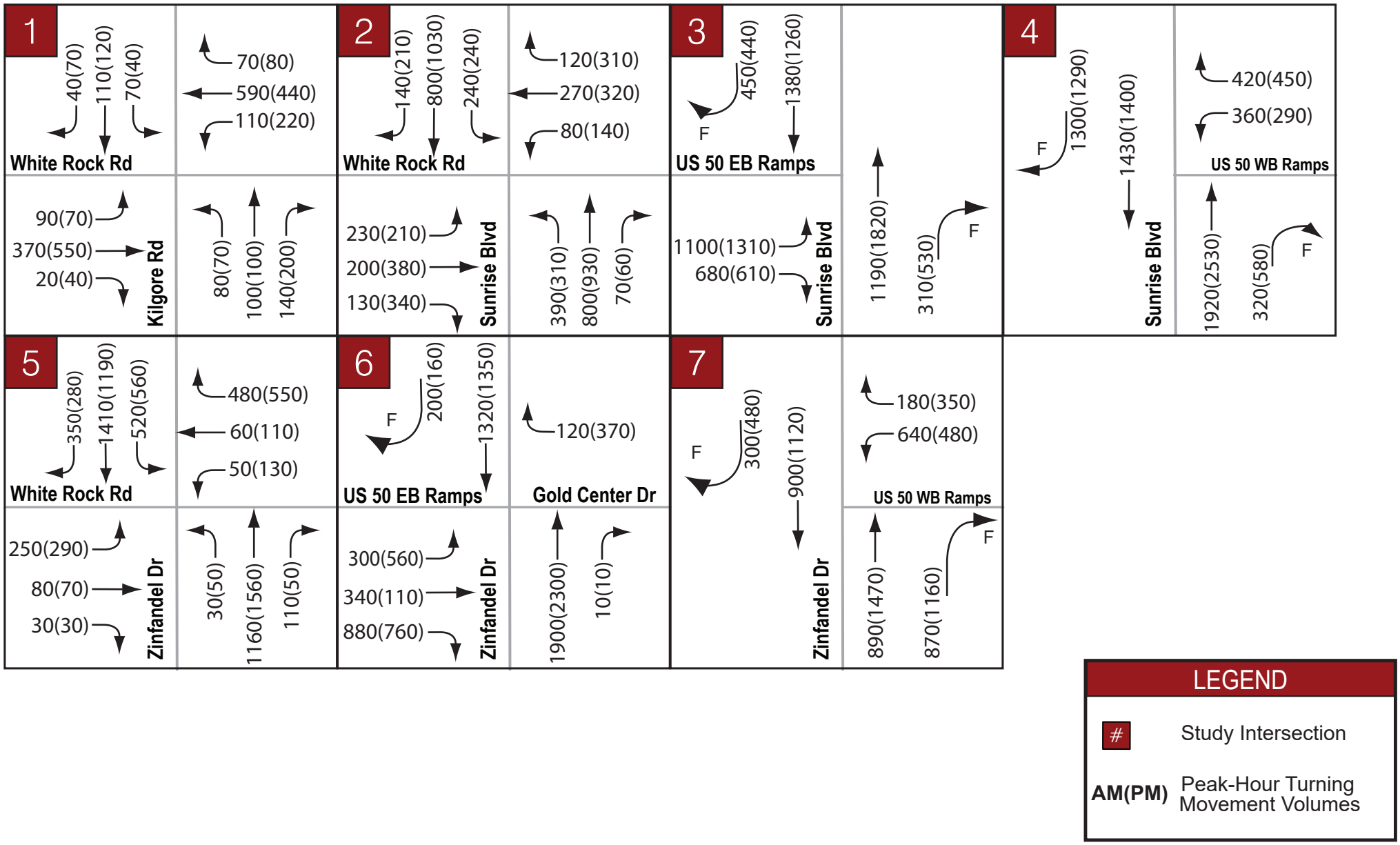
Figure 6
Peak-Hour Project Trip Assignment



Kimley»Horn

Figure 7

Opening Year (2024) Plus Project Peak-Hour Traffic Volumes



Kimley»Horn

Figure 8
Cumulative (2040) Peak-Hour Traffic Volumes

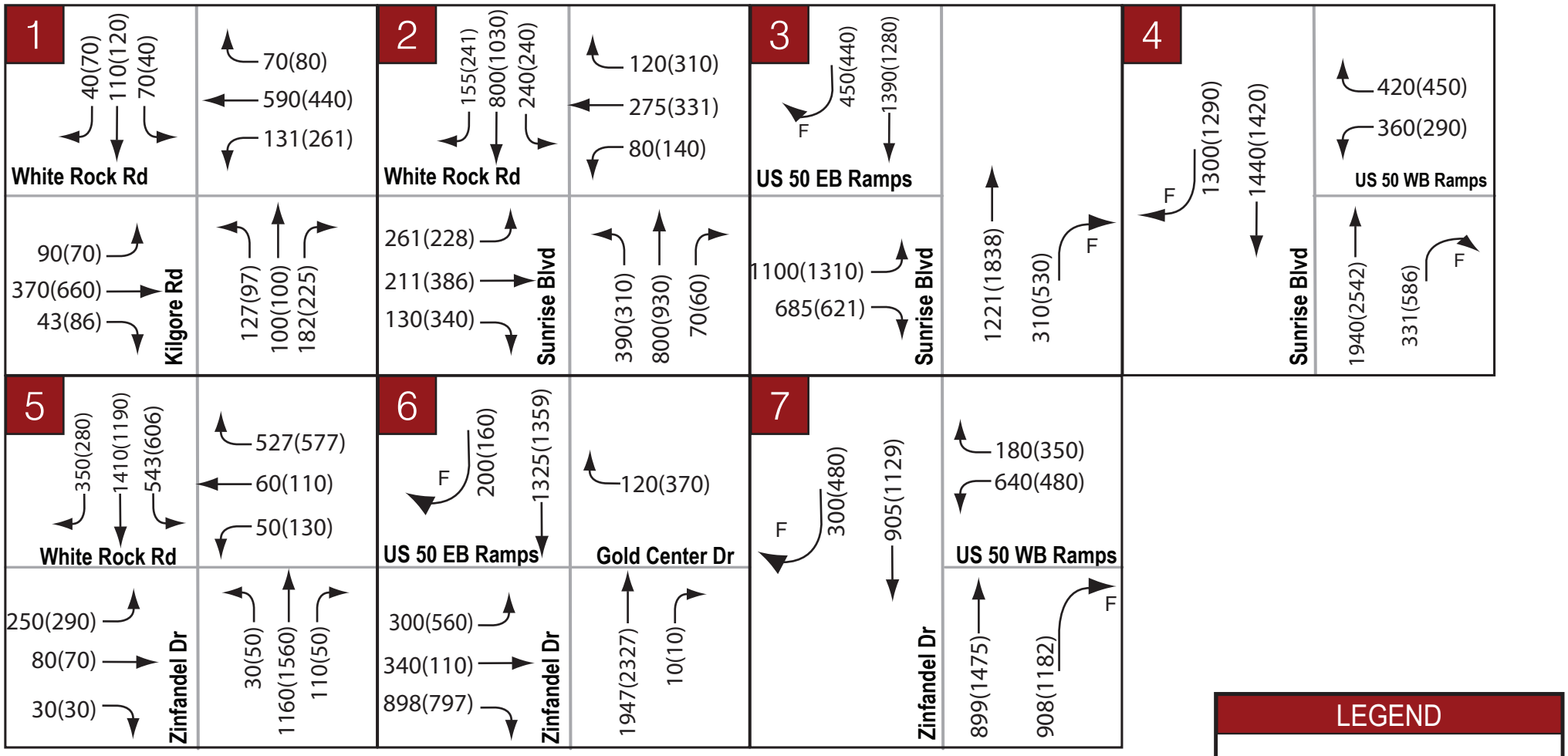


Figure 9
Cumulative (2040) Plus Project Peak-Hour Traffic Volumes

BICYCLE, PEDESTRIAN, AND TRANSIT EVALUATION

The applicability of a mid-block pedestrian crossing along Kilgore Road was evaluated using guidance found in the Federal Highway Administration (FHWA) "Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations"[6] report. Table 8 below presents recommended pedestrian crash countermeasures by roadway feature.

Table 8 – FHWA Pedestrian Crash Countermeasures

Roadway Configuration	Posted Speed Limit and AADT								
	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph
2 lanes (1 lane in each direction)	● 2 4 5 6	● 5 6 7 9	○ 5 6 ● 9	● 4 5 6	● 5 6 7 9	○ 5 6 ● 9	● 4 5 6 7 9	○ 5 6 7 9	○ 5 6 ● 9
3 lanes with raised median (1 lane in each direction)	● 2 3 4 5	● ○ 5 7 9	○ ○ 5 ● 9	○ 3 4 5 7 9	○ ○ 5 ● 9	○ ○ 5 ● 9	○ ○ 4 5 7 9	○ ○ 5 ● 9	○ ○ 5 ● 9
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	● 2 3 4 5 6 7 9	● ○ 5 6 7 9	○ ○ 5 6 9	○ 3 4 5 6 7 9	○ ○ 5 6 ● 9	○ ○ 5 6 9	○ ○ 4 5 6 7 9	○ ○ 5 6 9	○ ○ 5 6 9
4+ lanes with raised median (2 or more lanes in each direction)	● ○ 5 7 8 9	● ○ 5 7 8 9	○ ○ 5 8 ● 9	○ ○ 5 7 8 9	○ ○ 5 ● 8 ● 9	○ ○ 5 8 ● 9	○ ○ 5 ● 8 ● 9	○ ○ 5 8 ● 9	○ ○ 5 8 ● 9
4+ lanes w/o raised median (2 or more lanes in each direction)	● ○ 5 6 7 8 9	○ ○ 5 ● 6 7 8 9	○ ○ 5 ● 6 8 ● 9	○ ○ 5 ● 6 7 8 9	○ ○ 5 ● 6 ● 8 ● 9	○ ○ 5 ● 6 8 ● 9	○ ○ 5 ● 6 ● 8 ● 9	○ ○ 5 ● 6 8 ● 9	○ ○ 5 ● 6 8 ● 9

Given the set of conditions in a cell,

- # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.
- ● Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.
- ○ Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.*

The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.

1 High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs
2 Raised crosswalk
3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
4 In-Street Pedestrian Crossing sign
5 Curb extension
6 Pedestrian refuge island
7 Rectangular Rapid-Flashing Beacon (RRFB)**
8 Road Diet
9 Pedestrian Hybrid Beacon (PHB)**

Assuming that the PM peak-hour volume is 10% of the daily volume, the ADT on Kilgore Road is approximately 4,000 vehicles per day. Therefore, Kilgore Road has an ADT which falls in the range of less than 9,000 shown in Table 8, a posted speed limit of 40 MPH, and has two lanes in each direction with no median (4-lane undivided roadway). According to FHWA guidance, the following countermeasures should be considered, but are not required: Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) lines, a Pedestrian refuge island, and a Pedestrian Hybrid Beacon (PHB). Crosswalk visibility enhancements should be applied in conjunction with these appropriate countermeasures.

Kilgore Road has Class II bike lanes and pedestrian facilities (sidewalks) in both directions. Kilgore Road is also is part of the regional bike trail system, as described in the 2016 Rancho Cordova Bicycle Master Plan[7].

[6] *Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations, July 2018,* USDOT FHWA
[7] *Bicycle Master Plan, April 2016,* City of Rancho Cordova

The addition of the previously mentioned mid-block crossing elements to Kilgore Road would provide a more complete bike and pedestrian network and would facilitate travel to and from the project site. White Rock Road does not currently have bike lanes between Zinfandel Drive and Sunrise Boulevard, though it does have pedestrian facilities and crosswalks at the major intersections. The segment of White Rock Road immediately north of the project site has been identified in the City's Bicycle Master Plan as a location to implement Class II Bike lanes in the future. Pedestrian facilities and Class II bike lanes are present in both directions south of the project site along International Drive.

Residents at the project site will have access to Sacramento Regional Transit (SacRT) Rancho CordoVan service along Kilgore Road. This route is intended to connect riders with Zinfandel Station on the SacRT light rail Gold line, which provides service to both Sacramento and Folsom in either direction. Additional SacRT bus services within the area serve similar purposes in connecting riders with the light rail Gold line.

SITE PLAN, ACCESS, AND CIRCULATION EVALUATION

Based on the project's site plan depicted in Figure 2, the proposed project is to be served by several drive aisles providing access to buildings and parking. Access to the project's two different residential component types is provided via two separate gated entrances from side streets off of Kilgore Road. As both entrances are set back from Kilgore Road, minimal turn movement/access conflicts are anticipated for the analysis scenarios. Access to the project's commercial component is provided via a dedicated driveway on the northern edge of the site connecting directly to Kilgore Road. Three emergency vehicle access points are provided for the residential components. The project's residential site layout is anticipated to mainly serve personal vehicles and operate effectively.

DEFICIENCIES AND IMPROVEMENTS

Intersection LOS

As reflected in Table 3 and Table 4 all study intersections operate within the acceptable standard of LOS D under all analysis scenarios.

Ramp Queuing

As reflected in Table 6, the study intersection off-ramps have capacity to contain projected queues under all study scenarios.

Intersection Queuing

As reflected in Table 7, queuing exceeds the available storage for the westbound left movement at the Kilgore Road intersection with White Rock Road (Intersection #1) in AM peak-hour for Cumulative plus Project conditions and the PM peak-hour for both Cumulative and Cumulative plus Project conditions. While the Cumulative plus Project PM peak-hour conditions results in a notable increase in queue length beyond the no project condition, this can be reduced by reallocating signal time to more efficiently accommodate the needs to the westbound left movement.

OTHER CONSIDERATIONS

As a tenant has not yet been identified for the Restaurant component of the proposed project, an additional trip generation scenario was developed using ITE Land Use 930 (Fast Casual Restaurant) to more conservatively account for PM Peak-Hour trips. The alternative trip generation is presented in Table 9.

Table 9 – Alternative Project Trip Generation

ITE Land Use Code	Land Use	# Units/ ksf	Daily Trips	AM Peak-Hour			PM Peak-Hour		
				Total	In	Out	Total	In	Out
220	Multifamily Housing (Low-Rise)	177	1,210	78	19	59	97	61	36
221	Multifamily Housing (Mid-Rise)	240	1,098	94	22	72	94	57	37
930	Fast Casual Restaurant	9	911	81	45	36	107	59	48
Total Project Trips			**3,220**	**253**	**86**	**167**	**298**	**177**	**121**
Internal Capture (8% Daily/AM Peak-hour, 9% PM Peak-hour)			262	20	10	10	29	13	16
Net External Project Trips			***2,958***	***233***	***76***	***157***	***269***	***164***	***105***

When compared to the original trip generation developed in Table 2 and accounting for a similar proportion of internal capture between project land uses, the alternative trip generation results in a net increase of 25 trips during the PM Peak-Hour compared to the original trip generation. The alternative project trips were then distributed and assigned using the same percentages as the original trip generation. The ensuing analysis showed that the alternative PM project trip generation resulted comparable projected 95th percentile queues at the Kilgore Road intersection with White Rock Road (Intersection #1) with all study intersections operating within the acceptable LOS threshold, as found for the original project trip generation. The recommended improvement for the original trip generation at Intersection #1 (redistributing signal timing to better accommodate westbound left-turns) is suitable as an improvement for the alternative trip generation as well. All signals

CONCLUSIONS

Significant findings of this study include:

- The proposed project is anticipated to generate 3,220 new daily trips, with 253 and 268 trips occurring during the AM and PM peak-hours respectively.
  - Internal trip reduction to assess how the Project's residential and proximate commercial component trips might interact was generated using the NCHRP 684 Trip Capture Estimation Tool[8]. This resulted in a reduction of 262 daily trips, 20 AM peak-hour trips, and 24 PM peak-hour trips.
  - The final net external Project trip generation is 2,958 daily trips, 233 AM peak-hour trips, and 244 PM peak-hour trips.
- The addition of the proposed project to the Opening Year and Cumulative scenarios does not result in deficiencies at any of the study intersections. All study intersections operate within the acceptable Level of Service (LOS) threshold established by the City of Rancho Cordova's General Plan.
- The addition of the proposed project to Opening Year and Cumulative scenarios does not result in significant queueing deficiencies at any of the US-50 off-ramps. Current ramp lengths are sufficient to accommodate vehicles without creating vehicle spillback into the traveled way of US-50 at all study intersection locations.

[8] *Trip Generation Handbook (3rd Edition)*, Institute of Transportation Engineers (ITE), August 2014

Appendix A

Traffic Count Data Sheets

National Data & Surveying Services Intersection Turning Movement Count

Location: Kilgore Rd & White Rock Rd
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-001
Date: 1/11/2022

Data - Totals

NS/EW Streets:	Kilgore Rd				Kilgore Rd				White Rock Rd				White Rock Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	2	0	0	1	2	1	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	2	4	4	0	1	2	4	0	4	69	1	0	4	34	5	0	134
6:15 AM	0	3	5	0	8	6	3	0	2	87	0	0	6	40	1	0	161
6:30 AM	4	2	2	0	7	13	3	0	4	90	4	0	12	55	4	0	200
6:45 AM	3	15	7	0	13	13	4	0	9	122	11	0	5	68	9	0	279
7:00 AM	7	23	7	0	13	9	3	0	10	71	3	0	9	49	8	0	212
7:15 AM	6	13	10	0	9	21	6	0	9	74	3	0	2	45	12	0	210
7:30 AM	8	22	11	0	11	14	10	0	5	80	5	0	3	66	17	0	252
7:45 AM	7	35	5	0	19	23	8	0	20	97	3	0	5	61	21	0	304
8:00 AM	6	27	3	0	29	32	9	0	18	85	5	0	3	41	10	0	268
8:15 AM	1	19	9	0	11	33	11	0	10	103	1	0	4	61	10	0	273
8:30 AM	2	10	9	0	14	23	7	0	8	75	4	2	5	53	4	0	216
8:45 AM	3	17	10	0	5	13	6	0	9	78	3	2	7	67	8	0	228
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	49	190	82	0	140	202	74	0	108	1031	43	4	65	640	109	0	2737
APPROACH %'s :	15.26%	59.19%	25.55%	0.00%	33.65%	48.56%	17.79%	0.00%	9.11%	86.93%	3.63%	0.34%	7.99%	78.62%	13.39%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	22	103	28	0	70	102	38	0	53	365	14	0	15	229	58	0	1097
PEAK HR FACTOR :	0.688	0.736	0.636	0.000	0.603	0.773	0.864	0.000	0.663	0.886	0.700	0.000	0.750	0.867	0.690	0.000	0.902
	0.814				0.750				0.900				0.868				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	2	0	0	1	2	1	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	3	21	10	0	9	27	8	0	13	96	2	1	7	110	24	0	331
3:15 PM	4	23	6	0	13	31	6	0	8	82	2	0	3	99	22	0	299
3:30 PM	7	13	4	0	19	30	17	0	9	80	6	0	5	171	19	0	380
3:45 PM	10	25	7	0	13	17	8	0	8	99	6	0	5	111	21	0	330
4:00 PM	4	20	4	0	21	20	18	0	8	78	3	1	12	121	11	0	321
4:15 PM	2	24	8	0	17	26	12	0	5	89	2	0	4	97	14	0	300
4:30 PM	2	23	9	0	13	36	31	0	9	89	6	1	8	121	23	0	371
4:45 PM	7	23	7	0	7	29	9	0	6	79	13	1	21	97	14	0	313
5:00 PM	7	27	18	0	17	35	15	0	17	118	11	1	16	111	24	0	417
5:15 PM	8	29	13	0	6	24	9	0	11	69	7	0	16	112	23	0	327
5:30 PM	5	17	8	0	8	8	7	0	4	64	9	0	13	99	15	0	257
5:45 PM	3	11	5	0	7	20	13	0	5	54	10	2	14	96	9	0	249
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	62	256	99	0	150	303	153	0	103	997	77	7	124	1345	219	0	3895
APPROACH %'s :	14.87%	61.39%	23.74%	0.00%	24.75%	50.00%	25.25%	0.00%	8.70%	84.21%	6.50%	0.59%	7.35%	79.68%	12.97%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	24	102	47	0	43	124	64	0	43	355	37	3	61	441	84	0	1428
PEAK HR FACTOR :	0.750	0.879	0.653	0.000	0.632	0.861	0.516	0.000	0.632	0.752	0.712	0.750	0.726	0.911	0.875	0.000	0.856
	0.832				0.722				0.745				0.964				

National Data & Surveying Services Intersection Turning Movement Count

Location: Sunrise Blvd & White Rock Rd
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-002
Date: 1/11/2022

Data - Totals

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				White Rock Rd				White Rock Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	1	0	2	3	1	0	2	2	1	0	2	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	14	83	15	4	36	88	10	3	14	61	3	1	4	20	17	0	373
6:15 AM	12	89	12	5	53	110	8	2	14	79	5	2	20	31	37	0	479
6:30 AM	14	154	12	4	66	152	17	1	14	69	17	4	10	29	30	0	593
6:45 AM	13	138	25	5	66	153	15	0	25	96	18	7	12	59	34	0	666
7:00 AM	23	175	14	6	50	119	9	5	14	47	15	10	6	21	33	1	548
7:15 AM	13	171	13	7	38	122	8	6	26	46	12	7	15	35	33	0	552
7:30 AM	40	188	16	8	29	135	11	8	30	38	16	8	10	36	30	0	603
7:45 AM	46	204	15	9	41	143	16	4	25	67	23	6	14	23	22	1	659
8:00 AM	18	208	19	3	31	132	13	4	27	55	24	5	21	20	20	1	601
8:15 AM	39	189	22	6	52	153	8	8	27	69	16	8	21	23	25	1	667
8:30 AM	27	185	15	9	82	227	23	7	18	28	26	8	17	24	38	1	735
8:45 AM	26	218	17	5	54	189	16	5	21	45	23	7	16	32	35	0	709
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	285	2002	195	71	598	1723	154	53	255	700	198	73	166	353	354	5	7185
APPROACH %'s :	11.16%	78.42%	7.64%	2.78%	23.66%	68.16%	6.09%	2.10%	20.80%	57.10%	16.15%	5.95%	18.91%	40.21%	40.32%	0.57%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	110	800	73	23	219	701	60	24	93	197	89	28	75	99	118	3	2712
PEAK HR FACTOR :	0.705	0.917	0.830	0.639	0.668	0.772	0.652	0.750	0.861	0.714	0.856	0.875	0.893	0.773	0.776	0.750	0.922
	0.945				0.740				0.848				0.889				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	1	0	2	3	1	0	2	2	1	0	2	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	38	223	7	21	67	234	16	2	18	52	33	2	41	77	71	0	902
3:15 PM	24	167	13	17	55	207	17	4	28	68	20	7	46	76	64	2	815
3:30 PM	49	236	18	22	60	236	21	7	21	45	34	7	29	114	104	0	1003
3:45 PM	28	214	16	15	47	259	29	7	19	63	32	3	36	82	65	0	915
4:00 PM	46	209	15	20	59	283	21	5	20	51	39	1	39	73	82	0	963
4:15 PM	29	199	10	18	49	252	18	9	29	52	33	5	40	53	60	0	856
4:30 PM	52	208	14	15	45	239	28	7	30	52	31	2	49	86	72	0	930
4:45 PM	33	224	10	12	53	224	28	5	24	37	16	7	37	61	62	0	833
5:00 PM	54	239	17	15	55	254	36	9	40	77	39	8	50	69	73	0	1035
5:15 PM	47	247	8	13	35	265	31	9	30	34	16	3	26	58	55	0	877
5:30 PM	32	202	10	12	35	212	23	4	16	47	15	7	42	52	48	0	757
5:45 PM	35	191	10	11	60	180	24	9	17	37	17	3	33	67	47	0	741
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	467	2559	148	191	620	2845	292	77	292	615	325	55	468	868	803	2	10627
APPROACH %'s :	13.88%	76.05%	4.40%	5.68%	16.17%	74.20%	7.62%	2.01%	22.69%	47.79%	25.25%	4.27%	21.86%	40.54%	37.51%	0.09%	
PEAK HR :	03:30 PM - 04:30 PM																TOTAL
PEAK HR VOL :	152	858	59	75	215	1030	89	28	89	211	138	16	144	322	311	0	3737
PEAK HR FACTOR :	0.776	0.909	0.819	0.852	0.896	0.910	0.767	0.778	0.767	0.837	0.885	0.571	0.900	0.706	0.748	0.000	0.931
	0.880				0.925				0.954				0.786				

National Data & Surveying Services Intersection Turning Movement Count

Location: Sunrise Blvd & US-50 EB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-003
Date: 1/11/2022

Data - Totals

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				US-50 EB Ramps				US-50 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	4	2	0	0	3	2	0	3	0	2	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	76	28	0	0	231	30	0	100	0	72	0	0	0	0	0	537
6:15 AM	0	115	44	0	0	260	55	0	135	0	107	0	0	0	0	0	716
6:30 AM	0	162	60	0	0	320	79	0	166	0	113	0	0	0	0	0	900
6:45 AM	0	160	63	0	0	431	69	0	143	0	182	0	0	0	0	0	1048
7:00 AM	0	188	70	0	0	304	81	0	176	0	116	0	0	0	0	0	935
7:15 AM	0	204	55	0	0	316	84	0	228	0	104	0	0	0	0	0	991
7:30 AM	0	233	78	0	0	248	100	0	232	0	130	0	0	0	0	0	1021
7:45 AM	0	286	77	0	0	253	76	0	294	0	122	0	0	0	0	0	1108
8:00 AM	0	233	84	0	0	270	78	0	296	0	133	0	0	0	0	0	1094
8:15 AM	0	216	66	0	0	314	109	0	301	0	99	0	0	0	0	0	1105
8:30 AM	0	316	77	0	0	435	127	0	239	0	126	0	0	0	0	0	1320
8:45 AM	0	234	79	0	0	365	83	0	261	0	98	0	0	0	0	0	1120
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2423	781	0	0	3747	971	0	2571	0	1402	0	0	0	0	0	11895
APPROACH %'s :	0.00%	75.62%	24.38%	0.00%	0.00%	79.42%	20.58%	0.00%	64.71%	0.00%	35.29%	0.00%					
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	999	306	0	0	1384	397	0	1097	0	456	0	0	0	0	0	4639
PEAK HR FACTOR :	0.000	0.790	0.911	0.000	0.000	0.795	0.781	0.000	0.911	0.000	0.857	0.000	0.000	0.000	0.000	0.000	0.879
		0.830				0.792				0.905							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	4	2	0	0	3	2	0	3	0	2	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	414	122	0	0	287	112	0	370	0	81	0	0	0	0	0	1386
3:15 PM	0	371	98	0	0	308	130	0	325	0	97	0	0	0	0	0	1329
3:30 PM	0	477	109	0	0	301	102	0	351	0	102	0	0	0	0	0	1442
3:45 PM	0	425	117	0	0	330	97	0	307	0	103	0	0	0	0	0	1379
4:00 PM	0	479	138	0	0	321	111	0	323	0	86	0	0	0	0	0	1458
4:15 PM	0	369	101	0	0	305	78	0	290	0	75	0	0	0	0	0	1218
4:30 PM	0	459	108	0	0	295	97	0	320	0	81	0	0	0	0	0	1360
4:45 PM	0	350	92	0	0	265	77	0	347	0	83	0	0	0	0	0	1214
5:00 PM	0	479	109	0	0	316	88	0	323	0	56	0	0	0	0	0	1371
5:15 PM	0	436	101	0	0	275	95	0	325	0	79	0	0	0	0	0	1311
5:30 PM	0	332	106	0	0	260	113	0	261	0	68	0	0	0	0	0	1140
5:45 PM	0	318	87	0	0	273	77	0	251	0	67	0	0	0	0	0	1073
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4909	1288	0	0	3536	1177	0	3793	0	978	0	0	0	0	0	15681
APPROACH %'s :	0.00%	79.22%	20.78%	0.00%	0.00%	75.03%	24.97%	0.00%	79.50%	0.00%	20.50%	0.00%					
PEAK HR :	03:15 PM - 04:15 PM																TOTAL
PEAK HR VOL :	0	1752	462	0	0	1260	440	0	1306	0	388	0	0	0	0	0	5608
PEAK HR FACTOR :	0.000	0.914	0.837	0.000	0.000	0.955	0.846	0.000	0.930	0.000	0.942	0.000	0.000	0.000	0.000	0.000	0.962
		0.897				0.970				0.935							

National Data & Surveying Services Intersection Turning Movement Count

Location: Sunrise Blvd & US-50 WB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-004
Date: 1/11/2022

Data - Totals

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				US-50 WB Ramps				US-50 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	2	0	0	3	2	0	0	0	0	0	2	0	2	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	150	15	0	0	209	226	0	0	0	0	0	62	0	27	0	689
6:15 AM	0	232	28	0	0	259	259	0	0	0	0	0	50	0	39	0	867
6:30 AM	0	267	45	0	0	316	291	0	0	0	0	0	79	0	47	0	1045
6:45 AM	0	265	53	0	0	427	352	0	0	0	0	0	86	0	51	0	1234
7:00 AM	0	310	47	0	0	310	323	0	0	0	0	0	68	0	55	0	1113
7:15 AM	0	362	62	0	0	337	363	0	0	0	0	0	81	0	86	0	1291
7:30 AM	0	406	64	0	0	271	413	0	0	0	0	0	72	0	86	0	1312
7:45 AM	0	534	53	0	0	261	322	0	0	0	0	0	54	0	110	0	1334
8:00 AM	0	463	61	0	0	304	356	0	0	0	0	0	54	0	132	0	1370
8:15 AM	0	450	74	0	0	339	309	0	0	0	0	0	96	0	84	0	1352
8:30 AM	0	474	73	0	0	444	337	0	0	0	0	0	100	0	72	0	1500
8:45 AM	0	435	66	0	0	344	300	0	0	0	0	0	110	0	86	0	1341
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4348	641	0	0	3821	3851	0	0	0	0	0	912	0	875	0	14448
APPROACH %'s :	0.00%	87.15%	12.85%	0.00%	0.00%	49.80%	50.20%	0.00%					51.04%	0.00%	48.96%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	1822	274	0	0	1431	1302	0	0	0	0	0	360	0	374	0	5563
PEAK HR FACTOR :	0.000	0.961	0.926	0.000	0.000	0.806	0.914	0.000	0.000	0.000	0.000	0.000	0.818	0.000	0.708	0.000	0.927
		0.958				0.875								0.936			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	2	0	0	3	2	0	0	0	0	0	2	0	2	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	661	132	0	0	335	325	0	0	0	0	0	60	0	101	0	1614
3:15 PM	0	581	102	0	0	348	335	0	0	0	0	0	93	0	106	0	1565
3:30 PM	0	677	160	0	0	348	350	0	0	0	0	0	53	0	110	0	1698
3:45 PM	0	614	108	0	0	370	284	0	0	0	0	0	83	0	94	0	1553
4:00 PM	0	666	122	0	0	338	297	0	0	0	0	0	81	0	108	0	1612
4:15 PM	0	597	87	0	0	302	286	0	0	0	0	0	67	0	86	0	1425
4:30 PM	0	622	124	0	0	303	309	0	0	0	0	0	92	0	101	0	1551
4:45 PM	0	625	100	0	0	285	281	0	0	0	0	0	65	0	93	0	1449
5:00 PM	0	649	133	0	0	328	368	0	0	0	0	0	66	0	95	0	1639
5:15 PM	0	672	105	0	0	319	335	0	0	0	0	0	64	0	109	0	1604
5:30 PM	0	536	67	0	0	307	291	0	0	0	0	0	53	0	73	0	1327
5:45 PM	0	477	80	0	0	286	279	0	0	0	0	0	70	0	95	0	1287
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	7377	1320	0	0	3869	3740	0	0	0	0	0	847	0	1171	0	18324
APPROACH %'s :	0.00%	84.82%	15.18%	0.00%	0.00%	50.85%	49.15%	0.00%					41.97%	0.00%	58.03%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	2533	502	0	0	1401	1294	0	0	0	0	0	289	0	411	0	6430
PEAK HR FACTOR :	0.000	0.935	0.784	0.000	0.000	0.947	0.924	0.000	0.000	0.000	0.000	0.000	0.777	0.000	0.934	0.000	0.947
		0.907				0.965								0.879			

National Data & Surveying Services Intersection Turning Movement Count

Location: Zinfandel Dr & White Rock Rd
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-005
Date: 1/11/2022

Data - Totals

NS/EW Streets:	Zinfandel Dr				Zinfandel Dr				White Rock Rd				White Rock Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	0	0	2	3	1	0	2	3	0	0	2	1	2	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	5	75	1	0	82	80	11	0	25	6	4	3	1	6	29	0	328
6:15 AM	3	113	1	0	70	104	23	0	28	9	9	4	1	2	35	0	402
6:30 AM	7	134	1	0	102	130	35	1	38	13	3	0	1	3	46	0	514
6:45 AM	4	161	5	0	124	140	55	0	21	16	6	2	4	4	63	0	605
7:00 AM	5	141	2	0	68	118	43	0	35	6	6	2	2	7	52	0	487
7:15 AM	4	235	4	0	98	167	88	0	28	10	8	0	1	10	45	0	698
7:30 AM	10	281	6	0	129	198	79	0	56	13	7	2	7	8	63	0	859
7:45 AM	10	272	6	0	164	247	87	1	73	23	6	2	3	13	47	0	954
8:00 AM	6	286	2	0	115	264	93	1	66	10	3	1	4	8	44	1	904
8:15 AM	8	230	7	0	111	246	87	1	48	20	9	1	2	5	45	0	820
8:30 AM	9	184	0	0	97	207	69	0	44	10	8	1	8	4	34	0	675
8:45 AM	9	166	3	0	97	211	55	0	36	16	6	4	6	13	52	1	675
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	80	2278	38	0	1257	2112	725	4	498	152	75	22	40	83	555	2	7921
APPROACH %'s :	3.34%	95.08%	1.59%	0.00%	30.67%	51.54%	17.69%	0.10%	66.67%	20.35%	10.04%	2.95%	5.88%	12.21%	81.62%	0.29%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	34	1069	21	0	519	955	346	3	243	66	25	6	16	34	199	1	3537
PEAK HR FACTOR :	0.850	0.934	0.750	0.000	0.791	0.904	0.930	0.750	0.832	0.717	0.694	0.750	0.571	0.654	0.790	0.250	0.927
	0.946				0.913				0.817				0.801				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	0	0	2	3	1	0	2	3	0	0	2	1	2	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	9	310	9	1	61	253	62	1	53	8	9	5	2	14	110	0	907
3:15 PM	10	299	6	1	77	260	55	0	59	13	8	2	9	13	99	1	912
3:30 PM	15	271	9	1	62	255	59	0	77	17	7	2	7	17	186	0	985
3:45 PM	9	265	2	0	77	277	70	0	66	15	11	1	8	18	107	0	926
4:00 PM	10	238	6	2	78	251	62	1	87	22	12	2	3	17	141	0	932
4:15 PM	10	264	9	1	73	263	58	0	74	10	8	0	5	18	101	0	894
4:30 PM	14	326	8	0	80	259	56	0	72	9	7	3	12	14	119	1	980
4:45 PM	11	249	11	0	75	281	80	2	62	16	7	1	7	23	112	0	937
5:00 PM	11	283	5	2	92	246	71	0	92	18	10	2	6	28	204	0	1070
5:15 PM	6	274	7	1	43	274	66	0	55	16	10	2	9	22	110	1	896
5:30 PM	8	224	5	0	68	263	56	2	63	22	7	4	6	16	106	0	850
5:45 PM	10	206	9	0	69	257	57	1	50	9	3	6	5	14	93	1	790
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	123	3209	86	9	855	3139	752	7	810	175	99	30	79	214	1488	4	11079
APPROACH %'s :	3.59%	93.64%	2.51%	0.26%	17.99%	66.04%	15.82%	0.15%	72.71%	15.71%	8.89%	2.69%	4.43%	11.99%	83.36%	0.22%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	42	1132	31	3	290	1060	273	2	281	59	34	8	34	87	545	2	3883
PEAK HR FACTOR :	0.750	0.868	0.705	0.375	0.788	0.943	0.853	0.250	0.764	0.819	0.850	0.667	0.708	0.777	0.668	0.500	0.907
	0.868				0.928				0.783				0.702				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Zinfandel Dr & US-50 EB Ramps/Gold Center Dr
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-006
Date: 1/11/2022

Data - Totals

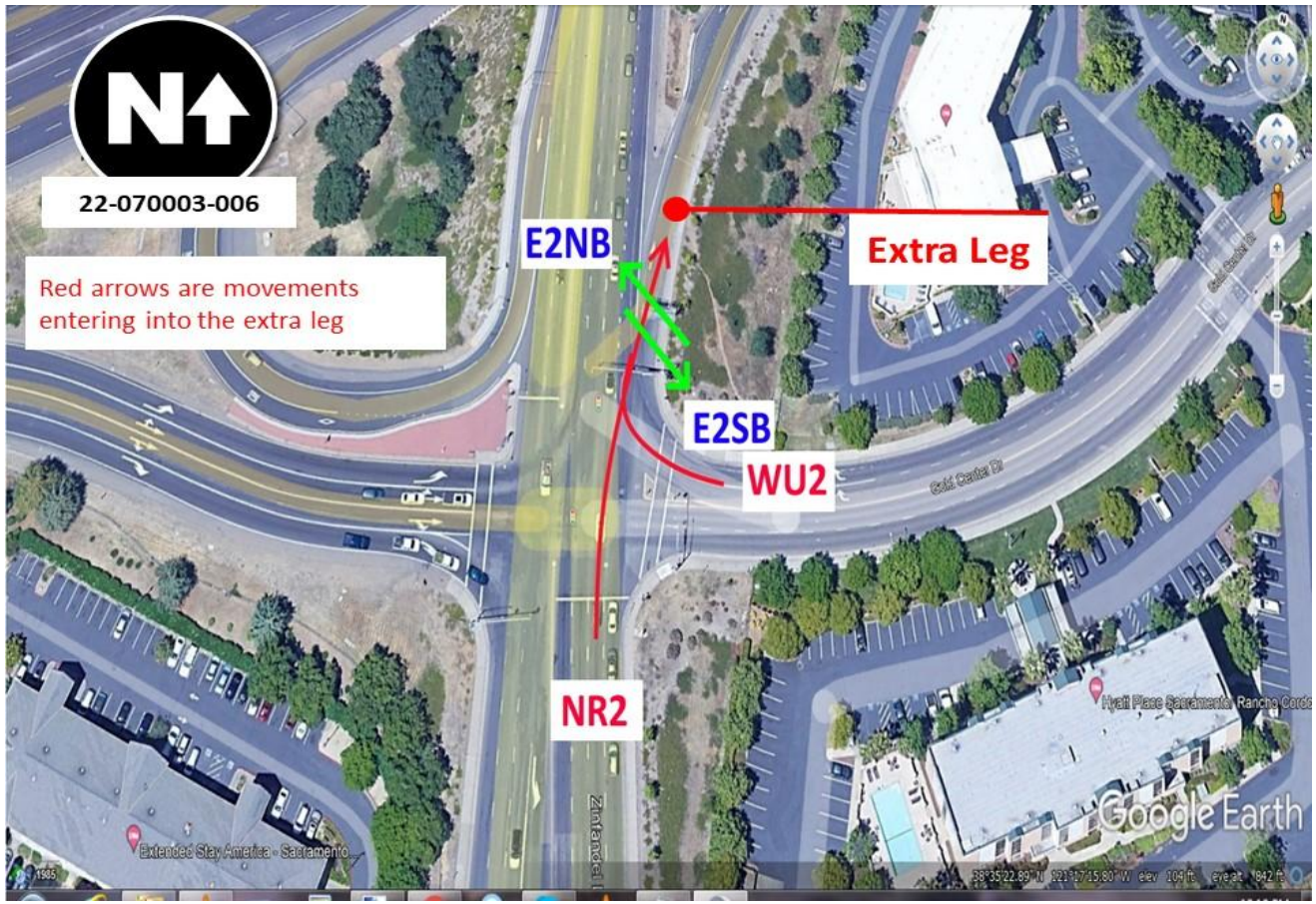
NS/EW Streets:	Zinfandel Dr					Zinfandel Dr				US-50 EB Ramps/Gold Center Dr				US-50 EB Ramps/Gold Center Dr					
AM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND					
	0	4	0	0	0	0	3	1	0	2	2	2	0	0	0	2	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
6:00 AM	0	98	4	0	25	0	50	14	0	17	27	117	0	0	0	13	0	2	367
6:15 AM	0	126	1	0	44	0	81	23	0	29	40	132	0	0	0	14	0	1	491
6:30 AM	0	169	2	0	53	0	97	30	0	24	28	164	0	0	0	7	0	2	576
6:45 AM	0	182	2	0	57	0	127	31	0	32	72	190	0	0	0	16	0	0	709
7:00 AM	0	179	0	0	54	0	117	35	0	47	54	119	0	0	0	10	0	5	620
7:15 AM	0	230	0	0	72	0	168	31	0	62	63	189	0	0	0	13	0	6	834
7:30 AM	0	295	1	0	109	0	226	53	0	56	59	198	0	0	0	19	0	4	1020
7:45 AM	0	299	3	0	85	0	274	49	0	87	112	220	0	0	0	24	0	5	1158
8:00 AM	0	289	2	0	112	0	301	46	0	83	77	189	0	0	0	17	0	5	1121
8:15 AM	0	216	1	0	103	0	280	47	0	75	70	172	0	0	0	17	0	6	987
8:30 AM	0	187	1	0	77	0	233	25	0	58	46	150	0	0	0	22	0	5	804
8:45 AM	0	191	4	0	61	0	200	22	0	93	58	161	0	0	0	19	0	4	813
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
TOTAL VOLUMES :	0	2461	21	0	852	0	2154	406	0	663	706	2001	0	0	0	191	0	45	9500
APPROACH %'s :	0.00%	73.82%	0.63%	0.00%	25.55%	0.00%	84.14%	15.86%	0.00%	19.67%	20.95%	59.38%	0.00%	0.00%	0.00%	80.93%	0.00%	19.07%	
PEAK HR :	07:30 AM - 08:30 AM																		TOTAL
PEAK HR VOL :	0	1099	7	0	409	0	1081	195	0	301	318	779	0	0	0	77	0	20	4286
PEAK HR FACTOR :	0.000	0.919	0.583	0.000	0.913	0.000	0.898	0.920	0.000	0.865	0.710	0.885	0.000	0.000	0.000	0.802	0.000	0.833	0.925
			0.935				0.919					0.834				0.836			

PM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND					
	0	4	0	0	0	0	3	1	0	2	2	2	0	0	0	2	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
3:00 PM	0	350	0	0	111	0	242	44	0	127	31	150	0	0	0	38	0	6	1099
3:15 PM	0	337	4	0	128	0	248	47	0	119	23	146	0	0	0	42	0	9	1103
3:30 PM	0	415	5	0	110	0	251	41	0	127	18	130	0	0	0	74	0	11	1182
3:45 PM	0	360	1	0	82	0	297	37	0	131	21	150	0	0	0	37	0	5	1121
4:00 PM	0	336	2	0	114	0	232	42	0	134	21	151	0	0	0	80	0	14	1126
4:15 PM	0	355	1	0	89	0	258	35	0	162	15	158	0	0	0	55	0	10	1138
4:30 PM	0	389	2	0	132	0	243	37	0	116	17	151	0	0	0	77	0	13	1177
4:45 PM	0	330	2	0	90	0	294	28	0	155	22	159	0	0	0	46	0	12	1138
5:00 PM	0	436	1	0	138	0	260	37	0	131	23	170	0	0	0	132	0	27	1355
5:15 PM	0	352	1	0	95	0	232	33	0	137	17	143	0	0	0	55	0	20	1085
5:30 PM	0	301	2	0	84	0	253	42	0	139	26	142	0	0	0	37	0	14	1040
5:45 PM	0	281	1	0	75	0	249	31	0	104	13	144	0	0	0	30	0	9	937
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
TOTAL VOLUMES :	0	4242	22	0	1248	0	3059	454	0	1582	247	1794	0	0	0	703	0	150	13501
APPROACH %'s :	0.00%	76.96%	0.40%	0.00%	22.64%	0.00%	87.08%	12.92%	0.00%	43.67%	6.82%	49.52%	0.00%	0.00%	0.00%	82.42%	0.00%	17.58%	
PEAK HR :	04:15 PM - 05:15 PM																		TOTAL
PEAK HR VOL :	0	1510	6	0	449	0	1055	137	0	564	77	638	0	0	0	310	0	62	4808
PEAK HR FACTOR :	0.000	0.866	0.750	0.000	0.813	0.000	0.897	0.926	0.000	0.870	0.837	0.938	0.000	0.000	0.000	0.587	0.000	0.574	0.887
			0.854				0.925					0.952				0.585			

National Data & Surveying Services

Intersection Turning Movement Count

Explanation for extra leg movements	
Movements entering the extra leg	
NR2	Movements coming from NB on Zinfandel Dr entering into the Extra Leg (US50-EB Ramps)
WU2	Movements coming from WB on Gold Center Drive entering into the Extra Leg (US50-EB Ramps)



National Data & Surveying Services Intersection Turning Movement Count

Location: Zinfandel Dr & US-50 WB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-007
Date: 1/11/2022

Data - Totals

NS/EW Streets:	Zinfandel Dr				Zinfandel Dr				US-50 WB Ramps				US-50 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	2.5	0	1.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	41	89	0	0	39	52	0	0	0	0	0	26	0	9	0	256
6:15 AM	0	52	114	0	0	52	56	0	0	0	0	0	51	0	14	0	339
6:30 AM	0	59	143	0	0	61	62	0	0	0	0	0	74	0	18	0	417
6:45 AM	0	89	136	0	0	84	56	0	0	0	0	0	67	0	21	0	453
7:00 AM	0	105	136	0	0	106	63	0	0	0	0	0	58	0	22	0	490
7:15 AM	0	131	166	0	0	94	77	0	0	0	0	0	95	0	41	0	604
7:30 AM	0	166	208	0	0	157	100	0	0	0	0	0	124	0	41	0	796
7:45 AM	0	238	165	0	0	152	63	0	0	0	0	0	166	0	56	0	840
8:00 AM	0	212	180	0	0	193	56	0	0	0	0	0	162	0	45	0	848
8:15 AM	0	171	132	0	0	165	70	0	0	0	0	0	157	0	27	0	722
8:30 AM	0	145	131	0	0	140	95	0	0	0	0	0	115	0	48	0	674
8:45 AM	0	170	130	0	0	108	67	0	0	0	0	0	117	0	60	0	652
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1579	1730	0	0	1351	817	0	0	0	0	0	1212	0	402	0	7091
APPROACH %'s :	0.00%	47.72%	52.28%	0.00%	0.00%	62.32%	37.68%	0.00%					75.09%	0.00%	24.91%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	787	685	0	0	667	289	0	0	0	0	0	609	0	169	0	3206
PEAK HR FACTOR :	0.000	0.827	0.823	0.000	0.000	0.864	0.723	0.000	0.000	0.000	0.000	0.000	0.917	0.000	0.754	0.000	0.945
		0.913				0.930								0.876			

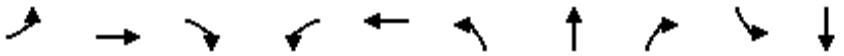
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	2.5	0	1.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	290	227	0	0	221	98	0	0	0	0	0	73	0	72	0	981
3:15 PM	0	288	204	0	0	202	99	0	0	0	0	0	89	0	62	0	944
3:30 PM	0	312	299	0	0	212	119	0	0	0	0	0	77	0	74	0	1093
3:45 PM	0	336	199	0	0	228	123	0	0	0	0	0	111	0	92	0	1089
4:00 PM	0	301	244	0	0	205	119	0	0	0	0	0	86	0	67	0	1022
4:15 PM	0	335	246	0	0	192	102	0	0	0	0	0	78	0	79	0	1032
4:30 PM	0	317	259	0	0	206	116	0	0	0	0	0	77	0	74	0	1049
4:45 PM	0	340	196	0	0	225	117	0	0	0	0	0	103	0	83	0	1064
5:00 PM	0	316	376	0	0	202	120	0	0	0	0	0	89	0	77	0	1180
5:15 PM	0	321	230	0	0	180	96	0	0	0	0	0	91	0	88	0	1006
5:30 PM	0	276	196	0	0	205	105	0	0	0	0	0	91	0	71	0	944
5:45 PM	0	266	154	0	0	192	99	0	0	0	0	0	79	0	70	0	860
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3698	2830	0	0	2470	1313	0	0	0	0	0	1044	0	909	0	12264
APPROACH %'s :	0.00%	56.65%	43.35%	0.00%	0.00%	65.29%	34.71%	0.00%					53.46%	0.00%	46.54%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	1308	1077	0	0	825	455	0	0	0	0	0	347	0	313	0	4325
PEAK HR FACTOR :	0.000	0.962	0.716	0.000	0.000	0.917	0.948	0.000	0.000	0.000	0.000	0.000	0.842	0.000	0.943	0.000	0.916
		0.862				0.936								0.887			

Appendix B

Analysis Worksheets for Existing (2022) Conditions

Queues

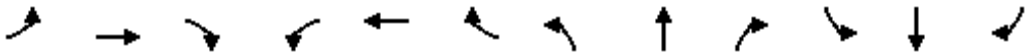
1: White Rock Rd & Kilgore Rd 05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	59	406	16	17	330	27	127	35	93	187
v/c Ratio	0.29	0.39	0.03	0.12	0.36	0.10	0.43	0.10	0.37	0.37
Control Delay	25.5	14.8	0.1	25.7	17.6	20.0	24.1	0.6	24.8	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	14.8	0.1	25.7	17.6	20.0	24.1	0.6	24.8	19.5
Queue Length 50th (ft)	15	37	0	4	26	6	32	0	24	21
Queue Length 95th (ft)	49	103	0	22	55	23	75	0	55	43
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	1057	3539	1583	1424	4933	1526	1606	1378	1526	2930
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.11	0.01	0.01	0.07	0.02	0.08	0.03	0.06	0.06

Intersection Summary

HCM 6th Signalized Intersection Summary
1: White Rock Rd & Kilgore Rd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	365	14	15	229	58	22	103	28	70	102	38
Future Volume (veh/h)	53	365	14	15	229	58	22	103	28	70	102	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	406	16	17	263	67	27	127	35	93	136	51
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.81	0.81	0.81	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	787	351	23	755	183	186	195	165	185	265	96
Arrive On Green	0.04	0.22	0.22	0.01	0.18	0.18	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	3554	1585	1781	4100	995	1781	1870	1585	1781	2560	921
Grp Volume(v), veh/h	59	406	16	17	216	114	27	127	35	93	93	94
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1691	1781	1870	1585	1781	1777	1705
Q Serve(g_s), s	1.3	3.8	0.3	0.4	2.1	2.2	0.5	2.5	0.8	1.9	1.9	2.0
Cycle Q Clear(g_c), s	1.3	3.8	0.3	0.4	2.1	2.2	0.5	2.5	0.8	1.9	1.9	2.0
Prop In Lane	1.00		1.00	1.00		0.59	1.00		1.00	1.00		0.54
Lane Grp Cap(c), veh/h	71	787	351	23	627	311	186	195	165	185	184	177
V/C Ratio(X)	0.83	0.52	0.05	0.74	0.34	0.37	0.15	0.65	0.21	0.50	0.50	0.53
Avail Cap(c_a), veh/h	1171	6544	2919	1640	6268	3114	1874	1968	1668	1874	1870	1794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	13.0	11.6	18.7	13.5	13.6	15.5	16.4	15.6	16.1	16.1	16.2
Incr Delay (d2), s/veh	9.0	0.2	0.0	15.4	0.1	0.3	0.1	1.4	0.2	0.8	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.2	0.1	0.2	0.7	0.7	0.2	1.0	0.2	0.7	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	13.2	11.7	34.1	13.6	13.8	15.6	17.7	15.8	16.9	16.9	17.1
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		481			347			189			280	
Approach Delay, s/veh		14.9			14.7			17.1			17.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	12.2		9.4	5.6	13.6		9.4				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	3.3	4.2		4.0	2.4	5.8		4.5				
Green Ext Time (p_c), s	0.0	0.4		0.2	0.0	0.6		0.1				

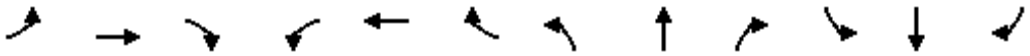
Intersection Summary	
HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

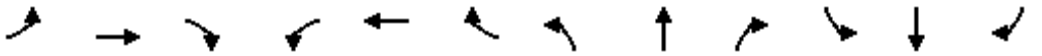
2: White Rock Rd & Sunrise Blvd 05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	142	232	105	88	111	133	141	851	78	328	947	81
v/c Ratio	0.45	0.44	0.32	0.35	0.17	0.41	0.45	0.48	0.13	0.63	0.46	0.12
Control Delay	43.9	37.8	11.1	44.9	36.3	11.7	43.9	22.6	4.9	40.8	18.9	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	37.8	11.1	44.9	36.3	11.7	43.9	22.6	4.9	40.8	18.9	4.2
Queue Length 50th (ft)	36	57	0	22	19	0	36	122	0	82	124	0
Queue Length 95th (ft)	75	109	41	55	43	52	79	195	27	124	152	15
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	1053	1737	830	1053	2509	848	1053	4303	1352	1053	4294	1350
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.13	0.13	0.08	0.04	0.16	0.13	0.20	0.06	0.31	0.22	0.06

Intersection Summary

HCM 6th Signalized Intersection Summary
2: White Rock Rd & Sunrise Blvd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	197	89	78	99	118	133	800	73	243	701	60
Future Volume (veh/h)	121	197	89	78	99	118	133	800	73	243	701	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	142	232	105	88	111	133	141	851	78	328	947	81
Peak Hour Factor	0.85	0.85	0.85	0.89	0.89	0.89	0.94	0.94	0.94	0.74	0.74	0.74
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	593	265	152	748	232	221	1860	578	420	2154	669
Arrive On Green	0.06	0.17	0.17	0.04	0.15	0.15	0.06	0.36	0.36	0.12	0.42	0.42
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	142	232	105	88	111	133	141	851	78	328	947	81
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	3.0	4.4	4.4	1.9	1.4	5.9	3.0	9.6	2.5	6.9	9.9	2.3
Cycle Q Clear(g_c), s	3.0	4.4	4.4	1.9	1.4	5.9	3.0	9.6	2.5	6.9	9.9	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	222	593	265	152	748	232	221	1860	578	420	2154	669
V/C Ratio(X)	0.64	0.39	0.40	0.58	0.15	0.57	0.64	0.46	0.14	0.78	0.44	0.12
Avail Cap(c_a), veh/h	1149	1891	843	1149	2717	843	1149	4754	1476	1149	4754	1476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	27.9	27.9	35.3	28.0	29.9	34.3	18.2	16.0	32.1	15.4	13.2
Incr Delay (d2), s/veh	1.1	0.2	0.4	1.3	0.3	7.4	1.1	0.4	0.2	1.2	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.8	1.7	0.8	0.6	2.6	1.3	3.6	0.9	2.9	3.6	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	28.1	28.3	36.6	28.3	37.3	35.5	18.6	16.2	33.3	15.7	13.4
LnGrp LOS	D	C	C	D	C	D	D	B	B	C	B	B
Approach Vol, veh/h		479			332			1070			1356	
Approach Delay, s/veh		30.3			34.1			20.6			19.8	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	37.5	10.3	17.0	14.6	33.2	8.8	18.5
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	5.0	11.9	5.0	7.9	8.9	11.6	3.9	6.4
Green Ext Time (p_c), s	0.1	18.3	0.1	3.1	0.2	15.8	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	12005	12071	11942	12106	12037	12006	12063
Vehs Exited	12038	12057	11910	12024	11992	11983	12102
Starting Vehs	343	303	302	314	292	303	350
Ending Vehs	310	317	334	396	337	326	311
Travel Distance (mi)	6302	6324	6220	6260	6257	6270	6300
Travel Time (hr)	341.9	335.4	332.9	337.8	331.1	334.7	334.4
Total Delay (hr)	113.1	106.5	107.2	110.6	104.5	107.2	105.8
Total Stops	10323	9942	9841	10011	9615	9799	9947
Fuel Used (gal)	251.5	250.0	246.4	249.3	247.4	249.6	250.2

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	11963	12009	12041	12026
Vehs Exited	11985	11963	12024	12008
Starting Vehs	318	297	312	311
Ending Vehs	296	343	329	332
Travel Distance (mi)	6265	6263	6286	6275
Travel Time (hr)	331.7	336.5	338.2	335.5
Total Delay (hr)	104.3	108.6	110.0	107.8
Total Stops	9859	9827	10035	9915
Fuel Used (gal)	247.2	248.4	250.0	249.0

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2867	2943	2879	2937	2803	2888	2967
Vehs Exited	2894	2891	2877	2910	2778	2871	2948
Starting Vehs	343	303	302	314	292	303	350
Ending Vehs	316	355	304	341	317	320	369
Travel Distance (mi)	1521	1542	1541	1525	1463	1516	1566
Travel Time (hr)	80.6	81.1	80.9	79.3	75.3	78.3	82.4
Total Delay (hr)	25.4	25.0	25.2	24.3	22.1	23.3	25.6
Total Stops	2452	2361	2402	2290	2206	2263	2451
Fuel Used (gal)	60.5	60.7	60.7	60.2	57.3	59.4	62.0

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2835	2821	2939	2885
Vehs Exited	2819	2831	2920	2874
Starting Vehs	318	297	312	311
Ending Vehs	334	287	331	325
Travel Distance (mi)	1516	1498	1539	1523
Travel Time (hr)	79.5	79.0	82.1	79.9
Total Delay (hr)	24.6	24.4	26.1	24.6
Total Stops	2393	2286	2471	2355
Fuel Used (gal)	59.6	58.9	61.1	60.0

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3346	3308	3289	3335	3413	3442	3308
Vehs Exited	3279	3278	3261	3258	3320	3378	3291
Starting Vehs	316	355	304	341	317	320	369
Ending Vehs	383	385	332	418	410	384	386
Travel Distance (mi)	1681	1676	1632	1656	1700	1733	1664
Travel Time (hr)	91.9	89.4	90.6	94.0	95.0	96.6	91.1
Total Delay (hr)	31.0	28.8	31.3	33.6	33.2	33.8	30.7
Total Stops	2793	2583	2677	2917	2765	2871	2772
Fuel Used (gal)	67.1	66.7	65.7	67.3	69.0	70.9	67.2

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3315	3293	3327	3337
Vehs Exited	3338	3214	3248	3284
Starting Vehs	334	287	331	325
Ending Vehs	311	366	410	378
Travel Distance (mi)	1670	1640	1660	1671
Travel Time (hr)	91.3	88.9	92.0	92.1
Total Delay (hr)	30.7	29.2	31.6	31.4
Total Stops	2804	2560	2823	2754
Fuel Used (gal)	66.9	65.1	66.8	67.3

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2875	2855	2812	2835	2929	2799	2858
Vehs Exited	2959	2923	2842	2924	3003	2849	2897
Starting Vehs	383	385	332	418	410	384	386
Ending Vehs	299	317	302	329	336	334	347
Travel Distance (mi)	1543	1543	1485	1513	1575	1499	1516
Travel Time (hr)	87.4	83.3	78.0	79.9	82.6	79.3	79.8
Total Delay (hr)	31.3	27.6	24.0	25.1	25.7	24.9	24.7
Total Stops	2696	2572	2313	2314	2357	2350	2337
Fuel Used (gal)	62.8	61.1	58.4	59.7	61.8	59.0	59.9

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2907	2939	2845	2864
Vehs Exited	2879	2996	2980	2926
Starting Vehs	311	366	410	378
Ending Vehs	339	309	275	317
Travel Distance (mi)	1533	1563	1542	1531
Travel Time (hr)	79.6	85.0	83.7	81.9
Total Delay (hr)	24.0	28.2	27.7	26.3
Total Stops	2328	2549	2443	2425
Fuel Used (gal)	59.7	62.5	61.8	60.7

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2917	2965	2962	2999	2892	2877	2930
Vehs Exited	2906	2965	2930	2932	2891	2885	2966
Starting Vehs	299	317	302	329	336	334	347
Ending Vehs	310	317	334	396	337	326	311
Travel Distance (mi)	1557	1563	1562	1566	1519	1522	1554
Travel Time (hr)	82.0	81.7	83.4	84.5	78.3	80.5	81.1
Total Delay (hr)	25.4	25.2	26.7	27.6	23.5	25.2	24.7
Total Stops	2382	2426	2449	2490	2287	2315	2387
Fuel Used (gal)	61.1	61.4	61.6	62.2	59.3	60.3	61.1

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2906	2956	2930	2933
Vehs Exited	2949	2922	2876	2920
Starting Vehs	339	309	275	317
Ending Vehs	296	343	329	332
Travel Distance (mi)	1545	1561	1545	1549
Travel Time (hr)	81.3	83.5	80.4	81.7
Total Delay (hr)	25.0	26.8	24.6	25.5
Total Stops	2334	2432	2298	2381
Fuel Used (gal)	61.0	61.9	60.3	61.0

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	11.9	1.8	3.1	4.6	21.5
Total Del/Veh (s)	37.0	14.1	10.8	11.3	18.7
Stop Delay (hr)	10.3	1.7	2.4	3.2	17.6
Stop Del/Veh (s)	31.9	12.8	8.3	7.9	15.3

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	1.6	1.6	4.6	3.5	11.4
Total Del/Veh (s)	15.7	15.0	8.9	8.5	9.9
Stop Delay (hr)	1.3	1.4	2.4	1.9	6.9
Stop Del/Veh (s)	12.1	12.8	4.5	4.5	6.0

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	3.7	0.1	0.1	2.4	0.2	0.4	0.0	0.0	0.0
Total Delay (hr)	4.0	0.8	0.1	0.3	0.6	0.7	0.6	6.6	0.1	8.6	4.2	0.7
Total Del/Veh (s)	53.4	43.3	10.0	59.5	60.6	12.2	65.1	21.4	16.4	56.4	14.5	7.5
Stop Delay (hr)	3.7	0.8	0.1	0.3	0.6	0.7	0.6	5.0	0.1	7.6	2.9	0.4
Stop Del/Veh (s)	49.8	39.1	10.0	56.3	54.1	11.0	60.9	16.3	13.5	49.5	10.0	3.5

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	27.4
Total Del/Veh (s)	26.3
Stop Delay (hr)	22.5
Stop Del/Veh (s)	21.7

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	2.7	2.8	2.9	0.0	7.3	0.0	4.3	20.1
Total Del/Veh (s)	31.3	29.0	12.8	1.4	16.8	15.5	14.0	17.0
Stop Delay (hr)	2.5	2.5	2.1	0.0	5.0	0.0	3.6	15.8
Stop Del/Veh (s)	29.2	26.6	9.1	0.1	11.4	10.8	11.7	13.3

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.4	0.2	0.0	0.0	0.1
Total Delay (hr)	6.4	0.5	1.1	0.9	8.9
Total Del/Veh (s)	36.0	9.3	4.8	4.8	13.8
Stop Delay (hr)	5.8	0.3	0.7	0.6	7.4
Stop Del/Veh (s)	32.3	6.6	3.2	3.1	11.5

Queuing and Blocking Report

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	290	305	307	148	148	280	138	116	39	262	240	246
Average Queue (ft)	206	219	226	76	78	182	63	47	6	144	140	134
95th Queue (ft)	277	291	300	124	127	272	120	95	28	224	225	216
Link Distance (ft)	1013	1013	1013	1013		54	54	54	54	204	204	204
Upstream Blk Time (%)						29	14	10	0	1	1	1
Queuing Penalty (veh)						73	35	25	0	7	5	5
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	111	131	113	119	244	254	267	166	162	179
Average Queue (ft)	53	74	59	61	126	128	126	83	97	106
95th Queue (ft)	97	113	96	101	203	211	212	128	146	164
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					0	0	0			
Queuing Penalty (veh)					1	1	2			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	L	T	TR	R	L	L
Maximum Queue (ft)	207	212	119	47	62	2	46	84	119	101	32	148
Average Queue (ft)	88	123	25	18	19	0	14	31	61	21	2	38
95th Queue (ft)	165	185	70	42	47	2	38	68	102	66	15	98
Link Distance (ft)			411	411				351	351	351		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	263	263			167	237	237				143	143
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	264	279	295	285	302	173	183	190	138
Average Queue (ft)	158	167	168	177	189	64	84	95	42
95th Queue (ft)	239	247	257	261	273	143	158	168	100
Link Distance (ft)	391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)		0	0						
Queuing Penalty (veh)		0	0						
Storage Bay Dist (ft)									
Storage Blk Time (%)	11								
Queuing Penalty (veh)	4								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	EB	EB	EB	EB	EB	EB	B14	B14	WB	WB	NB	NB
Directions Served	L	L	T	T	R	R	T	T	R	R	T	T
Maximum Queue (ft)	145	195	193	498	300	250	157	314	47	33	264	273
Average Queue (ft)	61	93	90	141	174	81	8	23	3	1	117	138
95th Queue (ft)	119	161	158	351	334	264	153	226	22	15	233	257
Link Distance (ft)	440	440	440	440			1753	1753	568	568	488	488
Upstream Blk Time (%)				2								
Queuing Penalty (veh)				0								
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)				0	12	0						
Queuing Penalty (veh)				0	21	1						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	NB	NB	SB	SB	SB
Directions Served	T	TR	T	T	T
Maximum Queue (ft)	297	299	188	174	162
Average Queue (ft)	152	155	130	103	113
95th Queue (ft)	271	272	209	184	191
Link Distance (ft)	488	488	50	50	50
Upstream Blk Time (%)			26	22	24
Queuing Penalty (veh)			95	82	90
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

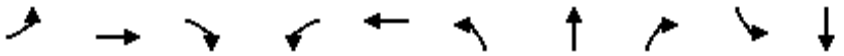
Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	196	226	298	210	162	164	125	140	150
Average Queue (ft)	107	126	161	72	59	58	51	68	65
95th Queue (ft)	172	192	242	176	129	135	111	121	130
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					2	2	1	0	0
Queuing Penalty (veh)					4	4	3	1	1
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)	0	0	5	0					
Queuing Penalty (veh)	0	1	4	0					

Queues

1: White Rock Rd & Kilgore Rd

05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	62	480	50	64	547	29	123	57	60	261
v/c Ratio	0.34	0.57	0.11	0.34	0.49	0.11	0.45	0.18	0.23	0.49
Control Delay	31.2	22.6	1.7	31.1	20.4	24.3	29.5	3.7	25.7	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	22.6	1.7	31.1	20.4	24.3	29.5	3.7	25.7	23.1
Queue Length 50th (ft)	19	72	0	20	54	8	37	0	17	34
Queue Length 95th (ft)	48	111	0	61	102	29	87	9	43	61
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	886	3524	1577	1219	4963	1343	1414	1225	1343	2559
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.14	0.03	0.05	0.11	0.02	0.09	0.05	0.04	0.10

Intersection Summary

HCM 6th Signalized Intersection Summary
1: White Rock Rd & Kilgore Rd 05/26/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	355	37	61	441	84	24	102	47	43	124	64
Future Volume (veh/h)	46	355	37	61	441	84	24	102	47	43	124	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	480	50	64	459	88	29	123	57	60	172	89
Peak Hour Factor	0.74	0.74	0.74	0.96	0.96	0.96	0.83	0.83	0.83	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	685	306	78	796	149	186	195	165	226	292	144
Arrive On Green	0.04	0.19	0.19	0.04	0.18	0.18	0.10	0.10	0.10	0.13	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	4320	808	1781	1870	1585	1781	2304	1138
Grp Volume(v), veh/h	62	480	50	64	359	188	29	123	57	60	131	130
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1725	1781	1870	1585	1781	1777	1665
Q Serve(g_s), s	1.4	5.0	1.0	1.4	3.8	4.0	0.6	2.5	1.3	1.2	2.8	3.0
Cycle Q Clear(g_c), s	1.4	5.0	1.0	1.4	3.8	4.0	0.6	2.5	1.3	1.2	2.8	3.0
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	75	685	306	78	627	318	186	195	165	226	225	211
V/C Ratio(X)	0.82	0.70	0.16	0.82	0.57	0.59	0.16	0.63	0.34	0.27	0.58	0.62
Avail Cap(c_a), veh/h	1118	6245	2785	1565	5982	3031	1789	1878	1592	1789	1784	1672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	15.0	13.4	18.9	14.8	14.9	16.2	17.1	16.6	15.7	16.4	16.5
Incr Delay (d2), s/veh	8.2	0.5	0.1	7.8	0.3	0.7	0.1	1.2	0.5	0.2	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.7	0.3	0.7	1.3	1.3	0.2	1.0	0.4	0.4	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	15.5	13.5	26.7	15.1	15.5	16.4	18.3	17.0	15.9	17.3	17.6
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		592			611			209			321	
Approach Delay, s/veh		16.5			16.5			17.7			17.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	12.5		10.6	6.8	12.9		9.6				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	3.4	6.0		5.0	3.4	7.0		4.5				
Green Ext Time (p_c), s	0.0	0.7		0.3	0.0	0.7		0.1				

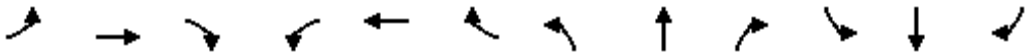
Intersection Summary		
HCM 6th Ctrl Delay		16.8
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

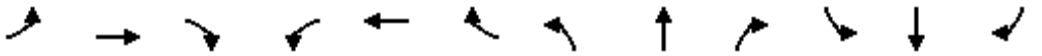
2: White Rock Rd & Sunrise Blvd 05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	111	222	145	182	408	394	258	975	67	261	1108	96
v/c Ratio	0.49	0.31	0.34	0.60	0.36	0.65	0.67	0.48	0.10	0.67	0.55	0.14
Control Delay	66.7	44.6	9.6	64.8	41.6	14.7	62.8	28.1	3.6	62.8	29.3	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.7	44.6	9.6	64.8	41.6	14.7	62.8	28.1	3.6	62.8	29.3	7.5
Queue Length 50th (ft)	41	74	0	67	93	40	95	193	0	96	227	5
Queue Length 95th (ft)	94	147	61	122	146	99	182	304	19	189	364	46
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	761	1256	655	761	1814	774	761	3168	1018	761	3159	1015
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.18	0.22	0.24	0.22	0.51	0.34	0.31	0.07	0.34	0.35	0.09

Intersection Summary

HCM 6th Signalized Intersection Summary
2: White Rock Rd & Sunrise Blvd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	211	138	144	322	311	227	858	59	243	1030	89
Future Volume (veh/h)	105	211	138	144	322	311	227	858	59	243	1030	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	222	145	182	408	394	258	975	67	261	1108	96
Peak Hour Factor	0.95	0.95	0.95	0.79	0.79	0.79	0.88	0.88	0.88	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	987	440	240	1528	474	316	1885	585	319	1889	586
Arrive On Green	0.05	0.28	0.28	0.07	0.30	0.30	0.09	0.37	0.37	0.09	0.37	0.37
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	111	222	145	182	408	394	258	975	67	261	1108	96
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	3.8	5.7	8.7	6.2	7.2	27.6	8.7	17.7	3.3	8.8	20.8	4.8
Cycle Q Clear(g_c), s	3.8	5.7	8.7	6.2	7.2	27.6	8.7	17.7	3.3	8.8	20.8	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	987	440	240	1528	474	316	1885	585	319	1889	586
V/C Ratio(X)	0.67	0.23	0.33	0.76	0.27	0.83	0.82	0.52	0.11	0.82	0.59	0.16
Avail Cap(c_a), veh/h	726	1195	533	726	1717	533	726	3004	933	726	3004	933
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	33.1	34.2	54.4	31.7	38.9	53.1	29.3	24.7	53.0	30.2	25.1
Incr Delay (d2), s/veh	1.8	0.0	0.2	1.9	0.3	13.7	2.0	0.5	0.2	2.0	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.5	3.4	2.7	3.0	12.4	3.9	7.3	1.3	3.9	8.6	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	33.2	34.3	56.3	32.1	52.5	55.0	29.7	24.9	55.0	30.8	25.4
LnGrp LOS	E	C	C	E	C	D	E	C	C	D	C	C
Approach Vol, veh/h		478			984			1300			1465	
Approach Delay, s/veh		39.2			44.7			34.5			34.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	49.8	11.2	41.6	16.5	49.7	13.7	39.0
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	10.7	22.8	5.8	29.6	10.8	19.7	8.2	10.7
Green Ext Time (p_c), s	0.2	21.2	0.1	6.0	0.2	18.1	0.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:05	3:05	3:05	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	13663	13759	13759	13672	13598	13699	13787
Vehs Exited	13655	13793	13788	13683	13563	13698	13726
Starting Vehs	348	375	380	404	343	379	337
Ending Vehs	356	341	351	393	378	380	398
Travel Distance (mi)	7150	7220	7214	7114	7120	7164	7198
Travel Time (hr)	390.0	398.3	392.7	389.0	391.4	395.1	395.5
Total Delay (hr)	129.7	134.8	129.7	129.6	131.6	134.0	133.3
Total Stops	11611	11930	11624	11878	11633	11995	11848
Fuel Used (gal)	287.8	293.4	290.8	288.0	288.9	290.1	291.3

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	13711	13741	13796	13720
Vehs Exited	13737	13738	13827	13723
Starting Vehs	386	378	374	367
Ending Vehs	360	381	343	369
Travel Distance (mi)	7187	7221	7224	7181
Travel Time (hr)	390.3	397.1	397.9	393.7
Total Delay (hr)	128.7	133.9	134.7	132.0
Total Stops	11737	11928	11903	11807
Fuel Used (gal)	289.7	292.5	293.0	290.6

Interval #0 Information Seeding

Start Time	3:05
End Time	3:15
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3293	3347	3256	3245	3206	3270	3424
Vehs Exited	3249	3333	3272	3304	3182	3288	3371
Starting Vehs	348	375	380	404	343	379	337
Ending Vehs	392	389	364	345	367	361	390
Travel Distance (mi)	1743	1762	1730	1741	1710	1730	1811
Travel Time (hr)	96.2	95.9	91.6	92.8	90.9	91.8	99.1
Total Delay (hr)	32.7	31.8	28.8	29.3	28.5	28.6	33.1
Total Stops	2970	2869	2738	2797	2696	2722	2984
Fuel Used (gal)	70.7	71.6	69.3	69.5	68.1	68.9	73.0

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3335	3334	3336	3304
Vehs Exited	3315	3345	3313	3297
Starting Vehs	386	378	374	367
Ending Vehs	406	367	397	380
Travel Distance (mi)	1776	1773	1765	1754
Travel Time (hr)	96.2	96.2	93.7	94.4
Total Delay (hr)	31.7	31.5	29.4	30.5
Total Stops	2942	2852	2811	2838
Fuel Used (gal)	71.7	71.4	70.3	70.5

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3767	3832	3728	3787	3790	3778	3693
Vehs Exited	3765	3746	3670	3649	3731	3719	3659
Starting Vehs	392	389	364	345	367	361	390
Ending Vehs	394	475	422	483	426	420	424
Travel Distance (mi)	1890	1918	1881	1871	1910	1900	1856
Travel Time (hr)	105.6	108.8	105.3	104.1	110.5	109.7	103.0
Total Delay (hr)	36.8	38.8	36.7	35.8	40.6	40.2	35.4
Total Stops	3196	3297	3141	3110	3258	3365	3102
Fuel Used (gal)	77.1	78.7	76.4	76.8	79.4	78.5	75.2

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3767	3811	3807	3776
Vehs Exited	3752	3747	3725	3718
Starting Vehs	406	367	397	380
Ending Vehs	421	431	479	439
Travel Distance (mi)	1900	1927	1899	1895
Travel Time (hr)	106.0	111.5	110.6	107.5
Total Delay (hr)	36.9	41.4	41.4	38.4
Total Stops	3208	3414	3308	3242
Fuel Used (gal)	77.8	79.9	79.0	77.9

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3318	3318	3383	3297	3321	3383	3356
Vehs Exited	3361	3436	3430	3365	3370	3418	3382
Starting Vehs	394	475	422	483	426	420	424
Ending Vehs	351	357	375	415	377	385	398
Travel Distance (mi)	1776	1802	1811	1742	1781	1793	1770
Travel Time (hr)	95.3	100.8	97.9	95.1	96.8	98.7	97.8
Total Delay (hr)	30.5	34.8	32.0	31.5	32.2	33.5	33.2
Total Stops	2802	2978	2805	2930	2843	2955	2926
Fuel Used (gal)	70.9	73.5	72.7	70.5	71.8	72.5	72.0

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3265	3332	3346	3331
Vehs Exited	3362	3369	3467	3396
Starting Vehs	421	431	479	439
Ending Vehs	324	394	358	370
Travel Distance (mi)	1760	1786	1809	1783
Travel Time (hr)	93.4	96.7	99.4	97.2
Total Delay (hr)	29.4	31.7	33.7	32.2
Total Stops	2730	2885	2980	2883
Fuel Used (gal)	70.1	71.7	73.5	71.9

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3285	3262	3392	3343	3281	3268	3314
Vehs Exited	3280	3278	3416	3365	3280	3273	3314
Starting Vehs	351	357	375	415	377	385	398
Ending Vehs	356	341	351	393	378	380	398
Travel Distance (mi)	1740	1739	1792	1760	1720	1741	1761
Travel Time (hr)	92.9	92.8	97.8	97.0	93.1	94.8	95.7
Total Delay (hr)	29.6	29.5	32.3	33.0	30.3	31.7	31.6
Total Stops	2643	2786	2940	3041	2836	2953	2836
Fuel Used (gal)	69.1	69.5	72.4	71.2	69.6	70.2	71.0

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3344	3264	3307	3304
Vehs Exited	3308	3277	3322	3309
Starting Vehs	324	394	358	370
Ending Vehs	360	381	343	369
Travel Distance (mi)	1751	1735	1752	1749
Travel Time (hr)	94.7	92.6	94.1	94.6
Total Delay (hr)	30.7	29.4	30.2	30.8
Total Stops	2857	2777	2804	2846
Fuel Used (gal)	70.1	69.5	70.2	70.3

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	14.1	1.2	7.0	4.4	26.8
Total Del/Veh (s)	38.1	11.1	13.9	12.3	19.9
Stop Delay (hr)	12.0	1.1	5.2	3.3	21.6
Stop Del/Veh (s)	32.2	10.0	10.4	9.0	16.0

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	1.9	3.0	7.7	3.2	15.9
Total Del/Veh (s)	23.0	24.5	10.7	7.9	11.9
Stop Delay (hr)	1.7	2.7	3.8	1.8	9.8
Stop Del/Veh (s)	19.5	21.5	5.3	4.3	7.4

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	3.0	0.2	0.2	2.5	0.4	0.7	0.0	0.0	0.0
Total Delay (hr)	5.2	0.8	0.1	0.7	1.5	3.9	0.9	8.9	0.2	5.1	6.9	0.6
Total Del/Veh (s)	58.6	42.4	10.8	62.7	54.4	23.3	70.9	27.4	23.0	61.1	21.8	7.5
Stop Delay (hr)	4.8	0.7	0.1	0.6	1.3	3.4	0.8	6.9	0.2	4.7	5.2	0.3
Stop Del/Veh (s)	54.4	38.3	10.7	59.1	47.4	20.1	66.4	21.1	18.3	55.8	16.4	4.1

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.2
Total Delay (hr)	34.8
Total Del/Veh (s)	30.3
Stop Delay (hr)	29.0
Stop Del/Veh (s)	25.2

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay (hr)	5.8	0.6	1.2	1.4	9.9	0.0	3.7	22.5
Total Del/Veh (s)	35.6	28.2	6.7	10.9	17.0	11.6	12.3	16.4
Stop Delay (hr)	5.2	0.6	0.7	1.0	6.3	0.0	3.0	16.8
Stop Del/Veh (s)	32.2	26.6	4.1	7.8	10.7	7.5	10.2	12.3

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.2	0.0	0.0	0.1
Total Delay (hr)	3.7	1.1	1.6	0.8	7.2
Total Del/Veh (s)	36.3	12.5	4.2	3.4	9.0
Stop Delay (hr)	3.4	0.9	0.9	0.5	5.7
Stop Del/Veh (s)	33.5	10.2	2.5	1.9	7.1

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	344	366	366	116	129	302	256	239	63	249	248	221
Average Queue (ft)	239	256	261	58	63	267	145	130	19	144	137	127
95th Queue (ft)	321	342	345	97	103	321	233	217	51	223	216	198
Link Distance (ft)	1013	1013	1013	1013		54	54	54	54	204	204	204
Upstream Blk Time (%)						34	28	25	2	1	1	0
Queuing Penalty (veh)						151	125	114	9	5	3	2
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	128	147	171	178	340	335	313	154	178	195
Average Queue (ft)	57	82	92	94	183	185	183	83	99	110
95th Queue (ft)	105	129	151	151	285	289	286	131	154	173
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					2	2	2			
Queuing Penalty (veh)					13	14	16			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Queuing and Blocking Report

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	L	T	TR	R	L	L
Maximum Queue (ft)	253	269	266	54	73	15	86	179	300	284	48	167
Average Queue (ft)	115	156	34	17	20	1	32	71	151	136	6	52
95th Queue (ft)	218	236	131	42	53	14	72	138	241	235	29	126
Link Distance (ft)			411	411				351	351	351		
Upstream Blk Time (%)			0						0	0		
Queuing Penalty (veh)			0						0	0		
Storage Bay Dist (ft)	263	263			167	237	237				143	143
Storage Blk Time (%)	0	1	0		0			0				0
Queuing Penalty (veh)	0	0	0		0			0				0

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	318	351	395	200	210	254	258	264	132
Average Queue (ft)	178	212	240	106	117	116	134	144	37
95th Queue (ft)	284	327	372	170	181	218	227	232	95
Link Distance (ft)	391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)	0	0	1						
Queuing Penalty (veh)	0	0	0						
Storage Bay Dist (ft)									
Storage Blk Time (%)	13								
Queuing Penalty (veh)	6								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	EB	EB	EB	EB	EB	EB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	R	R	R	R	T	T	T	TR
Maximum Queue (ft)	234	326	61	123	268	235	199	200	291	330	359	408
Average Queue (ft)	119	194	26	20	98	22	92	70	137	179	197	222
95th Queue (ft)	203	287	54	77	238	128	176	156	255	307	328	365
Link Distance (ft)	440	440	440	440			568	568	488	488	488	488
Upstream Blk Time (%)											0	0
Queuing Penalty (veh)											0	0
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)					2	0						
Queuing Penalty (veh)					1	0						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	SB	SB	SB
Directions Served	T	T	T
Maximum Queue (ft)	184	170	167
Average Queue (ft)	114	100	105
95th Queue (ft)	183	170	178
Link Distance (ft)	50	50	50
Upstream Blk Time (%)	23	23	23
Queuing Penalty (veh)	82	83	83
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: US50 WB Ramps

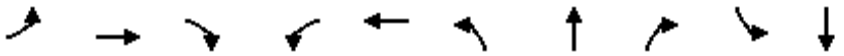
Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	114	129	169	151	182	183	152	152	152
Average Queue (ft)	56	80	106	69	77	82	70	64	60
95th Queue (ft)	97	121	154	115	156	157	133	121	125
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					3	3	2	0	0
Queuing Penalty (veh)					13	12	7	1	1
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)			0	0					
Queuing Penalty (veh)			0	0					

Appendix C

Analysis Worksheets for
Opening Year (2024) plus Proposed Project Conditions

Queues

1: White Rock Rd & Kilgore Rd 05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	60	413	41	40	324	76	116	77	79	158
v/c Ratio	0.30	0.50	0.09	0.23	0.32	0.28	0.41	0.24	0.34	0.34
Control Delay	26.0	19.1	0.9	26.1	16.5	22.7	24.7	6.4	25.4	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	19.1	0.9	26.1	16.5	22.7	24.7	6.4	25.4	20.2
Queue Length 50th (ft)	16	53	0	10	26	19	29	0	20	17
Queue Length 95th (ft)	51	106	3	39	55	57	80	23	61	47
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	1053	3539	1583	1413	4933	1514	1593	1368	1514	2906
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.12	0.03	0.03	0.07	0.05	0.07	0.06	0.05	0.05

Intersection Summary

HCM 6th Signalized Intersection Summary
1: White Rock Rd & Kilgore Rd 05/26/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	380	38	37	238	60	70	107	71	73	106	40
Future Volume (veh/h)	55	380	38	37	238	60	70	107	71	73	106	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	413	41	40	259	65	76	116	77	79	115	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	745	332	49	764	183	192	201	171	165	238	85
Arrive On Green	0.04	0.21	0.21	0.03	0.19	0.19	0.11	0.11	0.11	0.09	0.09	0.09
Sat Flow, veh/h	1781	3554	1585	1781	4114	984	1781	1870	1585	1781	2564	918
Grp Volume(v), veh/h	60	413	41	40	212	112	76	116	77	79	78	80
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1693	1781	1870	1585	1781	1777	1705
Q Serve(g_s), s	1.3	3.9	0.8	0.8	2.0	2.2	1.5	2.2	1.7	1.6	1.6	1.7
Cycle Q Clear(g_c), s	1.3	3.9	0.8	0.8	2.0	2.2	1.5	2.2	1.7	1.6	1.6	1.7
Prop In Lane	1.00		1.00	1.00		0.58	1.00		1.00	1.00		0.54
Lane Grp Cap(c), veh/h	72	745	332	49	632	315	192	201	171	165	165	158
V/C Ratio(X)	0.83	0.55	0.12	0.82	0.34	0.36	0.40	0.58	0.45	0.48	0.47	0.51
Avail Cap(c_a), veh/h	1182	6603	2945	1655	6325	3146	1891	1986	1683	1891	1887	1810
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	13.3	12.1	18.2	13.3	13.4	15.7	16.0	15.8	16.2	16.2	16.3
Incr Delay (d2), s/veh	8.9	0.2	0.1	12.1	0.1	0.3	0.5	1.0	0.7	0.8	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.3	0.2	0.5	0.6	0.7	0.5	0.9	0.6	0.6	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	13.6	12.1	30.3	13.4	13.6	16.2	17.0	16.5	17.0	17.0	17.2
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		514			364			269			237	
Approach Delay, s/veh		15.0			15.3			16.6			17.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	12.2		9.0	6.1	13.1		9.5				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	3.3	4.2		3.7	2.8	5.9		4.2				
Green Ext Time (p_c), s	0.0	0.4		0.1	0.0	0.6		0.1				

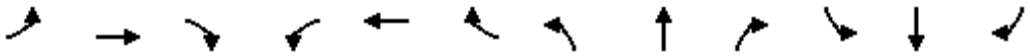
Intersection Summary		
HCM 6th Ctrl Delay		15.8
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

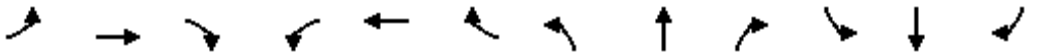
2: White Rock Rd & Sunrise Blvd 05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	171	235	101	88	117	134	150	904	83	275	792	84
v/c Ratio	0.50	0.42	0.30	0.36	0.17	0.41	0.47	0.48	0.13	0.60	0.38	0.12
Control Delay	44.9	37.6	10.9	46.6	37.4	11.8	45.3	22.3	5.2	43.1	18.8	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.9	37.6	10.9	46.6	37.4	11.8	45.3	22.3	5.2	43.1	18.8	4.5
Queue Length 50th (ft)	44	59	0	23	20	0	39	131	0	70	104	0
Queue Length 95th (ft)	95	119	48	57	46	56	86	208	30	138	165	28
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	1022	1686	807	1022	2435	828	1022	4198	1321	1022	4189	1319
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.14	0.13	0.09	0.05	0.16	0.15	0.22	0.06	0.27	0.19	0.06

Intersection Summary

HCM 6th Signalized Intersection Summary
2: White Rock Rd & Sunrise Blvd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	216	93	81	108	123	138	832	76	253	729	77
Future Volume (veh/h)	157	216	93	81	108	123	138	832	76	253	729	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	235	101	88	117	134	150	904	83	275	792	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	626	279	151	748	232	230	1944	604	364	2141	665
Arrive On Green	0.07	0.18	0.18	0.04	0.15	0.15	0.07	0.38	0.38	0.11	0.42	0.42
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	171	235	101	88	117	134	150	904	83	275	792	84
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	3.7	4.5	4.3	1.9	1.6	6.1	3.3	10.3	2.7	6.0	8.3	2.5
Cycle Q Clear(g_c), s	3.7	4.5	4.3	1.9	1.6	6.1	3.3	10.3	2.7	6.0	8.3	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	626	279	151	748	232	230	1944	604	364	2141	665
V/C Ratio(X)	0.67	0.38	0.36	0.58	0.16	0.58	0.65	0.46	0.14	0.76	0.37	0.13
Avail Cap(c_a), veh/h	1114	1833	818	1114	2634	818	1114	4610	1431	1114	4610	1431
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	28.2	28.1	36.4	28.9	30.9	35.3	18.1	15.7	33.7	15.5	13.8
Incr Delay (d2), s/veh	1.2	0.1	0.3	1.3	0.3	7.6	1.2	0.4	0.2	1.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.9	1.6	0.8	0.6	2.8	1.4	3.9	0.9	2.5	3.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.2	28.3	28.4	37.7	29.2	38.4	36.5	18.4	15.9	34.9	15.7	14.0
LnGrp LOS	D	C	C	D	C	D	D	B	B	C	B	B
Approach Vol, veh/h		507			339			1137			1151	
Approach Delay, s/veh		31.0			35.1			20.6			20.2	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	38.3	11.2	17.4	13.7	35.3	8.9	19.7
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	5.3	10.3	5.7	8.1	8.0	12.3	3.9	6.5
Green Ext Time (p_c), s	0.1	14.5	0.1	3.2	0.2	17.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	11999	12030	12213	12009	12199	12089	12215
Vehs Exited	12111	12069	12201	11981	12220	12089	12233
Starting Vehs	390	416	368	363	353	376	383
Ending Vehs	278	377	380	391	332	376	365
Travel Distance (mi)	6576	6579	6664	6534	6645	6617	6678
Travel Time (hr)	358.0	360.3	363.0	353.1	360.3	365.1	365.4
Total Delay (hr)	118.2	120.6	120.3	114.5	117.9	123.9	121.8
Total Stops	10899	11023	11034	10462	11023	11172	11091
Fuel Used (gal)	262.6	264.0	267.4	260.0	265.4	266.6	267.9

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	12034	12141	12008	12095
Vehs Exited	12035	12123	12049	12112
Starting Vehs	345	360	377	373
Ending Vehs	344	378	336	357
Travel Distance (mi)	6594	6666	6536	6609
Travel Time (hr)	362.0	359.9	357.0	360.4
Total Delay (hr)	121.9	117.2	118.4	119.5
Total Stops	10987	10813	10830	10931
Fuel Used (gal)	264.6	265.6	261.2	264.5

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2903	2988	2938	2878	2952	2930	3052
Vehs Exited	2936	3033	2959	2913	2950	2953	3086
Starting Vehs	390	416	368	363	353	376	383
Ending Vehs	357	371	347	328	355	353	349
Travel Distance (mi)	1600	1636	1611	1578	1603	1612	1669
Travel Time (hr)	88.3	89.1	84.9	82.5	87.5	87.8	90.1
Total Delay (hr)	30.0	29.5	26.5	25.1	28.8	29.1	29.4
Total Stops	2733	2678	2494	2393	2675	2621	2695
Fuel Used (gal)	64.2	65.9	63.5	62.0	64.0	64.6	67.0

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2965	2959	2947	2950
Vehs Exited	2986	3015	3003	2982
Starting Vehs	345	360	377	373
Ending Vehs	324	304	321	344
Travel Distance (mi)	1640	1636	1620	1620
Travel Time (hr)	90.4	88.6	89.7	87.9
Total Delay (hr)	31.0	29.0	30.5	28.9
Total Stops	2906	2594	2698	2644
Fuel Used (gal)	65.8	65.4	65.2	64.8

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3247	3155	3224	3174	3296	3228	3151
Vehs Exited	3261	3178	3189	3126	3261	3176	3131
Starting Vehs	357	371	347	328	355	353	349
Ending Vehs	343	348	382	376	390	405	369
Travel Distance (mi)	1763	1723	1755	1711	1783	1742	1708
Travel Time (hr)	95.9	96.4	97.9	94.3	97.7	97.3	97.4
Total Delay (hr)	31.6	33.6	33.9	32.0	32.6	33.8	35.2
Total Stops	2872	2967	2964	2761	3020	2906	3147
Fuel Used (gal)	70.5	70.0	70.8	68.9	71.9	70.3	69.8

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3160	3205	3155	3199
Vehs Exited	3101	3091	3067	3156
Starting Vehs	324	304	321	344
Ending Vehs	383	418	409	379
Travel Distance (mi)	1725	1743	1693	1735
Travel Time (hr)	95.2	95.5	92.4	96.0
Total Delay (hr)	32.3	32.1	30.6	32.8
Total Stops	2900	2950	2763	2924
Fuel Used (gal)	69.2	69.7	67.4	69.8

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2927	2904	2985	2963	3031	2941	3019
Vehs Exited	2939	2882	2994	2994	3060	3054	3010
Starting Vehs	343	348	382	376	390	405	369
Ending Vehs	331	370	373	345	361	292	378
Travel Distance (mi)	1624	1588	1626	1617	1664	1641	1670
Travel Time (hr)	88.0	85.5	87.4	87.5	89.5	89.7	90.9
Total Delay (hr)	28.7	27.6	28.0	28.2	29.0	29.8	30.0
Total Stops	2669	2598	2669	2665	2722	2720	2711
Fuel Used (gal)	64.5	62.8	65.1	64.5	66.1	65.9	66.7

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2953	2945	2952	2962
Vehs Exited	2988	2996	2997	2992
Starting Vehs	383	418	409	379
Ending Vehs	348	367	364	354
Travel Distance (mi)	1615	1626	1622	1629
Travel Time (hr)	86.1	86.0	87.3	87.8
Total Delay (hr)	27.3	26.7	28.0	28.3
Total Stops	2497	2446	2615	2627
Fuel Used (gal)	64.2	63.9	64.4	64.8

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2922	2983	3066	2994	2920	2990	2993
Vehs Exited	2975	2976	3059	2948	2949	2906	3006
Starting Vehs	331	370	373	345	361	292	378
Ending Vehs	278	377	380	391	332	376	365
Travel Distance (mi)	1590	1631	1672	1628	1594	1622	1631
Travel Time (hr)	85.8	89.3	92.8	88.7	85.6	90.3	86.9
Total Delay (hr)	27.9	30.0	31.8	29.3	27.4	31.2	27.3
Total Stops	2625	2780	2907	2643	2606	2925	2538
Fuel Used (gal)	63.3	65.3	67.8	64.6	63.4	65.8	64.5

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2956	3032	2954	2980
Vehs Exited	2960	3021	2982	2976
Starting Vehs	348	367	364	354
Ending Vehs	344	378	336	357
Travel Distance (mi)	1614	1661	1601	1624
Travel Time (hr)	90.2	89.8	87.7	88.7
Total Delay (hr)	31.3	29.4	29.3	29.5
Total Stops	2684	2823	2754	2727
Fuel Used (gal)	65.3	66.5	64.3	65.1

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	12.2	2.1	3.3	4.6	22.2
Total Del/Veh (s)	37.4	15.0	11.0	11.3	18.9
Stop Delay (hr)	10.5	1.9	2.5	3.2	18.2
Stop Del/Veh (s)	32.3	13.6	8.4	7.9	15.5

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	1.8	1.9	5.0	3.7	12.4
Total Del/Veh (s)	16.9	16.7	9.3	8.7	10.5
Stop Delay (hr)	1.4	1.6	2.5	2.0	7.5
Stop Del/Veh (s)	13.1	14.2	4.7	4.6	6.3

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	3.5	0.1	0.2	2.4	0.3	0.5	0.0	0.0	0.0
Total Delay (hr)	4.1	0.9	0.1	0.3	0.7	1.1	0.8	8.0	0.2	9.4	5.0	0.9
Total Del/Veh (s)	56.5	46.2	10.7	64.4	61.2	14.9	66.8	25.5	24.6	57.9	16.5	8.6
Stop Delay (hr)	3.8	0.9	0.1	0.3	0.6	1.0	0.7	6.1	0.1	8.3	3.5	0.5
Stop Del/Veh (s)	52.6	41.9	10.6	61.3	54.9	13.6	62.6	19.3	20.2	50.8	11.6	4.4

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.1
Total Delay (hr)	31.5
Total Del/Veh (s)	28.9
Stop Delay (hr)	25.8
Stop Del/Veh (s)	23.7

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	2.7	2.8	3.4	0.0	8.7	0.0	5.0	22.6
Total Del/Veh (s)	30.2	29.0	14.4	1.6	19.1	14.8	15.3	18.3
Stop Delay (hr)	2.5	2.6	2.5	0.0	5.8	0.0	4.2	17.5
Stop Del/Veh (s)	28.0	26.6	10.5	0.3	12.7	9.2	12.9	14.2

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.4	0.3	0.0	0.0	0.1
Total Delay (hr)	7.1	0.5	1.3	1.1	10.0
Total Del/Veh (s)	37.7	10.0	5.4	5.3	14.8
Stop Delay (hr)	6.4	0.4	0.9	0.7	8.3
Stop Del/Veh (s)	33.7	6.9	3.8	3.5	12.3

Queuing and Blocking Report

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	311	324	337	148	160	289	146	132	37	241	252	232
Average Queue (ft)	211	224	232	80	85	188	66	53	5	141	137	131
95th Queue (ft)	284	302	308	131	136	284	127	110	25	222	223	214
Link Distance (ft)	1013	1013	1013	1013		54	54	54	54	204	204	204
Upstream Blk Time (%)						29	14	10	0	1	1	1
Queuing Penalty (veh)						80	39	28	0	6	4	4
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	111	144	131	135	233	258	257	160	186	192
Average Queue (ft)	57	79	66	71	135	137	138	88	102	111
95th Queue (ft)	97	122	107	116	207	216	219	137	159	167
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					0	0	0			
Queuing Penalty (veh)					1	1	2			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Queuing and Blocking Report

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	L	T	TR	R	L	L
Maximum Queue (ft)	225	232	127	52	65	6	63	85	122	124	51	164
Average Queue (ft)	78	139	27	20	18	0	15	31	66	40	5	46
95th Queue (ft)	165	215	75	45	46	4	46	69	112	93	31	113
Link Distance (ft)			411	411				351	351	351		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	263	263			167	237	237				143	143
Storage Blk Time (%)	0	0										0
Queuing Penalty (veh)	0	0										0

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	268	336	380	304	311	189	202	217	179
Average Queue (ft)	156	207	234	198	211	80	100	115	53
95th Queue (ft)	240	307	338	287	296	169	181	194	129
Link Distance (ft)	391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)		0	0						
Queuing Penalty (veh)		0	0						
Storage Bay Dist (ft)									
Storage Blk Time (%)	9								
Queuing Penalty (veh)	3								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	EB	EB	EB	EB	EB	EB	B14	B14	WB	WB	NB	NB
Directions Served	L	L	T	T	R	R	T	T	R	R	T	T
Maximum Queue (ft)	126	218	166	448	300	250	10	124	57	52	243	293
Average Queue (ft)	47	108	91	160	202	118	0	9	6	4	113	152
95th Queue (ft)	98	188	144	387	351	311	8	117	33	27	218	271
Link Distance (ft)	440	440	440	440			1753	1753	568	568	488	488
Upstream Blk Time (%)				1								
Queuing Penalty (veh)				0								
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)					16	1						
Queuing Penalty (veh)					27	1						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	NB	NB	SB	SB	SB
Directions Served	T	TR	T	T	T
Maximum Queue (ft)	310	390	190	175	166
Average Queue (ft)	179	220	144	115	120
95th Queue (ft)	292	363	219	195	194
Link Distance (ft)	488	488	50	50	50
Upstream Blk Time (%)			29	26	28
Queuing Penalty (veh)			110	99	106
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

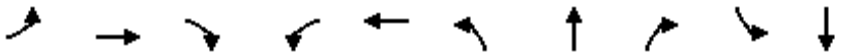
Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	195	258	298	210	175	180	146	164	146
Average Queue (ft)	118	137	169	87	65	64	53	77	75
95th Queue (ft)	182	212	249	202	145	147	123	135	133
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					3	2	1	1	0
Queuing Penalty (veh)					8	7	4	2	2
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)	0	1	6	0					
Queuing Penalty (veh)	1	2	5	0					

Queues

1: White Rock Rd & Kilgore Rd

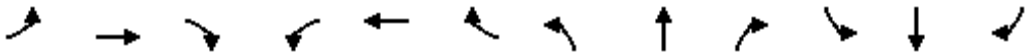
05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	52	401	91	113	594	57	115	80	49	213
v/c Ratio	0.31	0.56	0.23	0.46	0.38	0.24	0.45	0.27	0.22	0.47
Control Delay	31.0	23.6	6.6	29.9	16.9	25.6	29.5	7.4	26.5	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.0	23.6	6.6	29.9	16.9	25.6	29.5	7.4	26.5	22.9
Queue Length 50th (ft)	16	58	0	33	56	16	33	0	14	26
Queue Length 95th (ft)	52	119	30	88	104	51	90	27	48	66
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	852	3539	1583	1193	4963	1363	1435	1241	1363	2597
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.11	0.06	0.09	0.12	0.04	0.08	0.06	0.04	0.08

Intersection Summary

HCM 6th Signalized Intersection Summary
1: White Rock Rd & Kilgore Rd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	369	84	104	459	87	52	106	74	45	129	67
Future Volume (veh/h)	48	369	84	104	459	87	52	106	74	45	129	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	401	91	113	499	95	57	115	80	49	140	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	622	277	144	912	170	186	195	165	196	253	125
Arrive On Green	0.03	0.18	0.18	0.08	0.21	0.21	0.10	0.10	0.10	0.11	0.11	0.11
Sat Flow, veh/h	1781	3554	1585	1781	4324	806	1781	1870	1585	1781	2303	1139
Grp Volume(v), veh/h	52	401	91	113	391	203	57	115	80	49	106	107
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1725	1781	1870	1585	1781	1777	1665
Q Serve(g_s), s	1.2	4.2	2.0	2.5	4.1	4.2	1.2	2.3	1.9	1.0	2.3	2.4
Cycle Q Clear(g_c), s	1.2	4.2	2.0	2.5	4.1	4.2	1.2	2.3	1.9	1.0	2.3	2.4
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	62	622	277	144	718	364	186	195	165	196	195	183
V/C Ratio(X)	0.84	0.64	0.33	0.79	0.54	0.56	0.31	0.59	0.48	0.25	0.54	0.58
Avail Cap(c_a), veh/h	1114	6221	2775	1559	5959	3020	1782	1871	1586	1782	1777	1666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.2	15.3	14.4	18.0	14.1	14.1	16.6	17.1	16.9	16.3	16.9	16.9
Incr Delay (d2), s/veh	10.6	0.4	0.3	3.5	0.2	0.5	0.3	1.1	0.8	0.2	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.5	0.6	1.0	1.3	1.4	0.4	0.9	0.6	0.4	0.8	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	15.8	14.7	21.6	14.3	14.6	16.9	18.1	17.7	16.5	17.7	18.0
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		544			707			252			262	
Approach Delay, s/veh		16.9			15.6			17.7			17.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	13.6		9.9	8.3	12.2		9.6				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	3.2	6.2		4.4	4.5	6.2		4.3				
Green Ext Time (p_c), s	0.0	0.8		0.2	0.0	0.5		0.1				

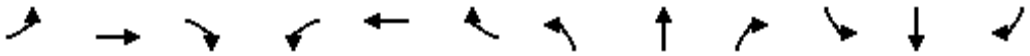
Intersection Summary		
HCM 6th Ctrl Delay		16.6
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

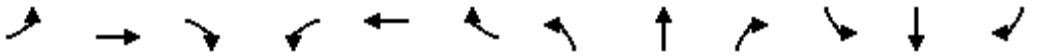
2: White Rock Rd & Sunrise Blvd 05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	138	245	157	163	376	351	257	970	66	275	1164	135
v/c Ratio	0.54	0.36	0.36	0.58	0.37	0.62	0.67	0.46	0.09	0.68	0.55	0.19
Control Delay	67.7	46.7	9.7	67.1	44.8	13.5	64.5	27.4	3.3	64.1	28.6	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.7	46.7	9.7	67.1	44.8	13.5	64.5	27.4	3.3	64.1	28.6	11.0
Queue Length 50th (ft)	53	86	0	62	92	26	98	191	0	105	239	23
Queue Length 95th (ft)	113	161	64	128	159	140	187	311	20	198	383	79
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	738	1218	647	738	1759	750	738	3072	989	738	3063	987
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.20	0.24	0.22	0.21	0.47	0.35	0.32	0.07	0.37	0.38	0.14

Intersection Summary

HCM 6th Signalized Intersection Summary
2: White Rock Rd & Sunrise Blvd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	225	144	150	346	323	236	892	61	253	1071	124
Future Volume (veh/h)	127	225	144	150	346	323	236	892	61	253	1071	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	138	245	157	163	376	351	257	970	66	275	1164	135
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	193	957	427	219	1414	439	314	1951	606	332	1978	614
Arrive On Green	0.06	0.27	0.27	0.06	0.28	0.28	0.09	0.38	0.38	0.10	0.39	0.39
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	138	245	157	163	376	351	257	970	66	275	1164	135
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	4.7	6.5	9.7	5.6	6.9	24.8	8.8	17.5	3.2	9.4	21.8	6.9
Cycle Q Clear(g_c), s	4.7	6.5	9.7	5.6	6.9	24.8	8.8	17.5	3.2	9.4	21.8	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	957	427	219	1414	439	314	1951	606	332	1978	614
V/C Ratio(X)	0.71	0.26	0.37	0.74	0.27	0.80	0.82	0.50	0.11	0.83	0.59	0.22
Avail Cap(c_a), veh/h	716	1178	525	716	1693	525	716	2962	919	716	2962	919
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	34.6	35.8	55.5	34.1	40.5	53.9	28.4	24.0	53.6	29.3	24.8
Incr Delay (d2), s/veh	1.8	0.1	0.2	1.9	0.3	12.0	2.0	0.4	0.2	2.0	0.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.8	3.8	2.5	2.9	11.1	3.9	7.2	1.3	4.2	9.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	34.6	35.9	57.4	34.4	52.5	55.9	28.8	24.2	55.6	29.9	25.1
LnGrp LOS	E	C	D	E	C	D	E	C	C	E	C	C
Approach Vol, veh/h		540			890			1293			1574	
Approach Delay, s/veh		41.0			45.8			34.0			34.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	52.5	12.3	39.4	17.1	51.9	13.2	38.5
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	10.8	23.8	6.7	26.8	11.4	19.5	7.6	11.7
Green Ext Time (p_c), s	0.2	22.9	0.1	6.6	0.2	18.0	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	37.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Baseline

SimTraffic Simulation Summary

DEFAULT

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:05	3:05	3:05	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	14090	14110	14194	14186	14044	14259	14197
Vehs Exited	14046	14150	14148	14138	13977	14268	14156
Starting Vehs	377	393	377	379	374	405	394
Ending Vehs	421	353	423	427	441	396	435
Travel Distance (mi)	7458	7519	7517	7524	7451	7580	7496
Travel Time (hr)	417.0	423.1	415.7	417.8	411.7	428.8	418.8
Total Delay (hr)	145.1	149.5	142.0	143.6	140.9	152.4	145.4
Total Stops	12461	12671	12428	12210	12248	13020	12601
Fuel Used (gal)	303.9	308.2	305.0	305.4	302.8	310.7	306.1

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	14084	14310	14063	14152
Vehs Exited	14080	14340	14058	14138
Starting Vehs	409	397	407	391
Ending Vehs	413	367	412	410
Travel Distance (mi)	7506	7620	7471	7514
Travel Time (hr)	423.1	427.3	417.2	420.1
Total Delay (hr)	149.6	149.3	144.6	146.2
Total Stops	12706	12671	12454	12544
Fuel Used (gal)	306.3	311.4	304.9	306.5

Interval #0 Information Seeding

Start Time	3:05
End Time	3:15
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3386	3562	3508	3445	3358	3434	3471
Vehs Exited	3358	3515	3505	3445	3323	3453	3416
Starting Vehs	377	393	377	379	374	405	394
Ending Vehs	405	440	380	379	409	386	449
Travel Distance (mi)	1794	1897	1867	1827	1763	1831	1831
Travel Time (hr)	100.1	107.6	103.3	97.5	96.7	100.6	99.7
Total Delay (hr)	34.8	38.6	35.5	31.1	32.5	33.8	33.0
Total Stops	3076	3218	3048	2829	2877	3059	3056
Fuel Used (gal)	73.2	78.2	75.7	73.3	71.5	74.8	73.9

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3435	3594	3456	3467
Vehs Exited	3435	3573	3468	3450
Starting Vehs	409	397	407	391
Ending Vehs	409	418	395	406
Travel Distance (mi)	1830	1902	1841	1838
Travel Time (hr)	100.8	104.8	100.5	101.2
Total Delay (hr)	34.1	35.4	33.3	34.2
Total Stops	2935	3165	2935	3021
Fuel Used (gal)	74.1	76.8	74.6	74.6

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3734	3631	3603	3743	3815	3799	3787
Vehs Exited	3715	3632	3549	3640	3748	3751	3731
Starting Vehs	405	440	380	379	409	386	449
Ending Vehs	424	439	434	482	476	434	505
Travel Distance (mi)	1968	1932	1896	1936	2014	2001	1980
Travel Time (hr)	112.7	108.2	105.1	107.8	113.6	117.4	114.6
Total Delay (hr)	41.0	37.8	36.1	37.0	40.3	44.2	42.5
Total Stops	3413	3200	3206	3049	3325	3563	3462
Fuel Used (gal)	80.8	78.8	77.0	78.3	82.2	82.9	81.9

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3702	3819	3842	3747
Vehs Exited	3652	3789	3735	3695
Starting Vehs	409	418	395	406
Ending Vehs	459	448	502	461
Travel Distance (mi)	1966	2033	2008	1973
Travel Time (hr)	113.7	117.6	118.6	112.9
Total Delay (hr)	42.1	43.7	45.4	41.0
Total Stops	3447	3397	3638	3365
Fuel Used (gal)	80.9	84.4	83.5	81.1

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3437	3496	3547	3478	3451	3476	3395
Vehs Exited	3467	3451	3555	3546	3503	3455	3458
Starting Vehs	424	439	434	482	476	434	505
Ending Vehs	394	484	426	414	424	455	442
Travel Distance (mi)	1829	1847	1888	1879	1873	1847	1806
Travel Time (hr)	100.6	105.4	105.1	107.1	103.3	102.9	99.0
Total Delay (hr)	33.8	38.0	36.2	38.6	35.3	35.7	33.1
Total Stops	2978	3161	3111	3199	3120	3169	2879
Fuel Used (gal)	74.3	76.0	76.6	77.3	76.2	74.9	73.4

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3477	3380	3330	3446
Vehs Exited	3507	3408	3454	3480
Starting Vehs	459	448	502	461
Ending Vehs	429	420	378	426
Travel Distance (mi)	1850	1803	1812	1844
Travel Time (hr)	101.4	99.0	97.8	102.1
Total Delay (hr)	34.1	32.9	31.7	35.0
Total Stops	2977	2935	2844	3038
Fuel Used (gal)	74.7	72.7	73.1	74.9

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3533	3421	3536	3520	3420	3550	3544
Vehs Exited	3506	3552	3539	3507	3403	3609	3551
Starting Vehs	394	484	426	414	424	455	442
Ending Vehs	421	353	423	427	441	396	435
Travel Distance (mi)	1867	1842	1867	1881	1801	1900	1879
Travel Time (hr)	103.6	101.9	102.3	105.5	98.1	108.0	105.5
Total Delay (hr)	35.5	35.0	34.3	36.8	32.8	38.7	36.8
Total Stops	2994	3092	3063	3133	2926	3229	3204
Fuel Used (gal)	75.5	75.2	75.8	76.5	72.9	78.1	76.8

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3470	3517	3435	3495
Vehs Exited	3486	3570	3401	3512
Starting Vehs	429	420	378	426
Ending Vehs	413	367	412	410
Travel Distance (mi)	1860	1882	1810	1859
Travel Time (hr)	107.4	106.0	100.3	103.9
Total Delay (hr)	39.3	37.2	34.2	36.1
Total Stops	3347	3174	3037	3116
Fuel Used (gal)	76.7	77.5	73.6	75.9

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	15.8	1.5	7.8	4.9	29.9
Total Del/Veh (s)	39.7	12.3	14.8	12.9	21.0
Stop Delay (hr)	13.3	1.3	5.8	3.6	24.0
Stop Del/Veh (s)	33.4	11.1	11.1	9.4	16.9

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	2.3	3.3	9.0	3.5	18.1
Total Del/Veh (s)	25.5	26.3	11.9	8.2	13.0
Stop Delay (hr)	2.0	2.9	4.5	2.0	11.3
Stop Del/Veh (s)	21.8	23.1	5.9	4.7	8.1

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.9	0.1	0.3	2.4	0.4	0.5	0.0	0.0	0.0
Total Delay (hr)	5.1	0.7	0.1	0.7	1.4	4.0	0.9	9.9	0.3	6.1	7.6	0.7
Total Del/Veh (s)	61.3	42.5	11.6	65.2	52.3	23.2	68.4	29.4	29.6	61.2	22.5	8.2
Stop Delay (hr)	4.8	0.6	0.1	0.7	1.2	3.5	0.8	7.7	0.3	5.6	5.7	0.4
Stop Del/Veh (s)	57.0	38.6	11.5	61.7	45.6	20.0	63.6	22.8	24.8	55.6	16.9	4.5

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.2
Total Delay (hr)	37.5
Total Del/Veh (s)	31.3
Stop Delay (hr)	31.2
Stop Del/Veh (s)	26.0

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay (hr)	5.9	0.6	1.7	1.0	11.8	0.0	4.4	25.4
Total Del/Veh (s)	35.1	27.2	8.8	8.8	19.9	20.7	14.0	18.1
Stop Delay (hr)	5.3	0.6	1.1	0.7	7.7	0.0	3.7	19.1
Stop Del/Veh (s)	31.6	25.6	5.8	6.3	13.0	14.5	11.6	13.6

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.2	0.0	0.0	0.1
Total Delay (hr)	3.8	1.2	1.6	0.9	7.4
Total Del/Veh (s)	36.0	12.7	4.0	3.5	8.9
Stop Delay (hr)	3.5	1.0	0.9	0.5	5.8
Stop Del/Veh (s)	33.1	10.5	2.3	1.9	7.0

Queuing and Blocking Report

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	384	409	411	132	131	300	274	274	83	261	268	228
Average Queue (ft)	259	277	286	65	69	272	164	145	18	153	149	137
95th Queue (ft)	345	363	374	110	112	318	257	243	58	233	233	215
Link Distance (ft)	1013	1013	1013	1013		54	54	54	54	204	204	204
Upstream Blk Time (%)						35	29	28	3	1	1	1
Queuing Penalty (veh)						165	137	133	15	6	5	3
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	153	160	188	188	346	348	370	187	208	219
Average Queue (ft)	65	88	101	99	204	210	208	94	106	117
95th Queue (ft)	120	135	164	160	316	327	327	152	169	186
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					3	3	4			
Queuing Penalty (veh)					27	29	33			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Queuing and Blocking Report

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	L	T	TR	R	L	L
Maximum Queue (ft)	234	258	225	54	86	19	83	157	275	245	46	167
Average Queue (ft)	111	156	35	16	21	1	32	63	154	142	7	54
95th Queue (ft)	211	241	142	42	56	9	72	123	231	223	31	131
Link Distance (ft)			411	411				351	351	351		
Upstream Blk Time (%)			0						0			
Queuing Penalty (veh)			0						0			
Storage Bay Dist (ft)	263	263			167	237	237				143	143
Storage Blk Time (%)	0	1	0									0
Queuing Penalty (veh)	0	0	0									0

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	345	383	410	217	236	268	291	298	144
Average Queue (ft)	195	238	267	126	139	128	146	157	43
95th Queue (ft)	302	348	386	192	208	227	244	253	108
Link Distance (ft)	391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)	0	0	1						
Queuing Penalty (veh)	0	0	0						
Storage Bay Dist (ft)									
Storage Blk Time (%)	15								
Queuing Penalty (veh)	7								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	EB	EB	EB	EB	EB	EB	B14	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	R	T	R	R	T	T	T
Maximum Queue (ft)	287	362	69	239	289	240	12	169	164	338	380	439
Average Queue (ft)	120	208	26	28	126	47	0	80	56	159	199	221
95th Queue (ft)	214	314	58	142	284	192	10	152	125	282	332	364
Link Distance (ft)	440	440	440	440			1753	568	568	488	488	488
Upstream Blk Time (%)		0		0							0	0
Queuing Penalty (veh)		0		0							0	0
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)					5	0						
Queuing Penalty (veh)					2	0						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	NB	SB	SB	SB
Directions Served	TR	T	T	T
Maximum Queue (ft)	447	185	174	168
Average Queue (ft)	249	131	115	119
95th Queue (ft)	399	199	184	188
Link Distance (ft)	488	50	50	50
Upstream Blk Time (%)	0	27	27	26
Queuing Penalty (veh)	0	100	100	97
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	133	164	186	155	187	176	144	172	153
Average Queue (ft)	61	87	108	71	79	78	68	67	64
95th Queue (ft)	106	134	161	124	154	148	127	130	128
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					3	2	1	0	0
Queuing Penalty (veh)					13	9	6	2	2
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)	0	0	0	0					
Queuing Penalty (veh)	0	0	0	0					

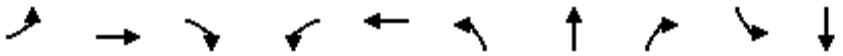
Appendix D

Analysis Worksheets for Cumulative Conditions

Queues

1: White Rock Rd & Kilgore Rd

05/26/2022

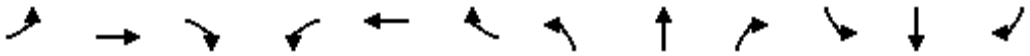


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	98	402	22	120	717	87	109	152	76	163
v/c Ratio	0.44	0.49	0.05	0.48	0.62	0.38	0.45	0.45	0.38	0.41
Control Delay	31.5	21.9	0.2	30.8	22.2	29.4	30.8	10.2	31.4	25.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	21.9	0.2	30.8	22.2	29.4	30.8	10.2	31.4	25.2
Queue Length 50th (ft)	30	58	0	36	74	26	33	0	23	22
Queue Length 95th (ft)	83	120	0	95	135	74	89	47	69	57
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	819	3516	1573	1147	5004	1311	1380	1212	1311	2523
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.11	0.01	0.10	0.14	0.07	0.08	0.13	0.06	0.06

Intersection Summary

HCM 6th Signalized Intersection Summary

1: White Rock Rd & Kilgore Rd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	370	20	110	590	70	80	100	140	70	110	40
Future Volume (veh/h)	90	370	20	110	590	70	80	100	140	70	110	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	402	22	120	641	76	87	109	152	76	120	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	682	304	153	921	108	246	258	219	161	234	81
Arrive On Green	0.07	0.19	0.19	0.09	0.20	0.20	0.14	0.14	0.14	0.09	0.09	0.09
Sat Flow, veh/h	1781	3554	1585	1781	4633	544	1781	1870	1585	1781	2595	892
Grp Volume(v), veh/h	98	402	22	120	469	248	87	109	152	76	81	82
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1772	1781	1870	1585	1781	1777	1710
Q Serve(g_s), s	2.3	4.4	0.5	2.8	5.5	5.6	1.9	2.3	3.9	1.7	1.9	2.0
Cycle Q Clear(g_c), s	2.3	4.4	0.5	2.8	5.5	5.6	1.9	2.3	3.9	1.7	1.9	2.0
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	124	682	304	153	677	353	246	258	219	161	161	155
V/C Ratio(X)	0.79	0.59	0.07	0.78	0.69	0.70	0.35	0.42	0.70	0.47	0.50	0.53
Avail Cap(c_a), veh/h	1037	5794	2584	1452	5550	2890	1660	1743	1477	1660	1655	1593
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.7	15.8	14.2	19.2	16.0	16.0	16.8	16.9	17.6	18.6	18.6	18.7
Incr Delay (d2), s/veh	4.1	0.3	0.0	3.3	0.5	1.0	0.3	0.4	1.5	0.8	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.6	0.2	1.2	1.9	2.0	0.7	0.9	1.3	0.7	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	16.1	14.3	22.5	16.5	17.0	17.1	17.3	19.1	19.4	19.5	19.7
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		522			837			348			239	
Approach Delay, s/veh		17.5			17.5			18.1			19.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	13.7		9.4	8.8	13.4		11.3				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	4.3	7.6		4.0	4.8	6.4		5.9				
Green Ext Time (p_c), s	0.0	1.0		0.1	0.0	0.6		0.1				

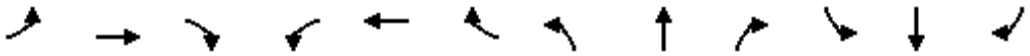
Intersection Summary			
HCM 6th Ctrl Delay		17.8	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

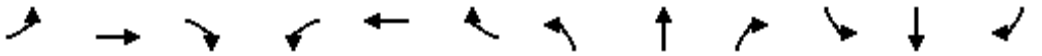
2: White Rock Rd & Sunrise Blvd 05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	250	217	141	87	293	130	424	870	76	261	870	152
v/c Ratio	0.64	0.29	0.32	0.41	0.36	0.36	0.70	0.44	0.11	0.65	0.52	0.25
Control Delay	56.1	39.0	8.8	59.8	44.0	11.2	50.1	25.1	4.7	55.8	30.7	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.1	39.0	8.8	59.8	44.0	11.2	50.1	25.1	4.7	55.8	30.7	9.1
Queue Length 50th (ft)	84	65	0	29	65	0	139	154	0	88	173	14
Queue Length 95th (ft)	156	124	56	68	118	58	243	239	27	162	261	66
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	829	1367	698	829	1975	694	829	3449	1100	829	3439	1110
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.16	0.20	0.10	0.15	0.19	0.51	0.25	0.07	0.31	0.25	0.14

Intersection Summary

HCM 6th Signalized Intersection Summary
2: White Rock Rd & Sunrise Blvd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	200	130	80	270	120	390	800	70	240	800	140
Future Volume (veh/h)	230	200	130	80	270	120	390	800	70	240	800	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	250	217	141	87	293	130	424	870	76	261	870	152
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	326	771	344	145	842	261	500	2007	623	337	1766	548
Arrive On Green	0.09	0.22	0.22	0.04	0.16	0.16	0.14	0.39	0.39	0.10	0.35	0.35
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	250	217	141	87	293	130	424	870	76	261	870	152
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	6.4	4.6	7.0	2.3	4.6	6.8	10.9	11.3	2.8	6.7	12.2	6.3
Cycle Q Clear(g_c), s	6.4	4.6	7.0	2.3	4.6	6.8	10.9	11.3	2.8	6.7	12.2	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	326	771	344	145	842	261	500	2007	623	337	1766	548
V/C Ratio(X)	0.77	0.28	0.41	0.60	0.35	0.50	0.85	0.43	0.12	0.78	0.49	0.28
Avail Cap(c_a), veh/h	949	1562	697	949	2244	697	949	3927	1219	949	3927	1219
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	29.7	30.6	42.8	33.7	34.6	38.0	20.2	17.6	40.1	23.5	21.5
Incr Delay (d2), s/veh	1.4	0.1	0.3	1.5	0.8	5.0	1.6	0.3	0.2	1.5	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.0	2.6	1.0	2.0	2.9	4.6	4.4	1.0	2.9	4.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	29.8	30.9	44.3	34.5	39.5	39.5	20.5	17.8	41.6	23.9	22.1
LnGrp LOS	D	C	C	D	C	D	D	C	B	D	C	C
Approach Vol, veh/h		608			510			1370			1283	
Approach Delay, s/veh		34.9			37.5			26.2			27.3	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.7	37.3	14.1	21.0	14.4	41.6	9.3	25.8
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	12.9	14.2	8.4	8.8	8.7	13.3	4.3	9.0
Green Ext Time (p_c), s	0.3	17.2	0.2	6.2	0.2	16.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	13083	13230	13264	13153	13220	13221	13239
Vehs Exited	13105	13327	13217	13151	13202	13240	13232
Starting Vehs	412	441	356	444	424	364	420
Ending Vehs	390	344	403	446	442	345	427
Travel Distance (mi)	6977	7064	7030	7029	7046	7063	7038
Travel Time (hr)	405.7	403.1	407.6	406.1	423.9	399.3	398.5
Total Delay (hr)	151.8	146.1	152.3	149.9	167.6	142.2	142.8
Total Stops	12769	12666	13155	12805	14202	12451	12546
Fuel Used (gal)	287.3	290.0	290.3	290.1	294.1	288.4	287.8

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	12838	13130	13019	13137
Vehs Exited	12821	13092	13082	13146
Starting Vehs	403	387	414	408
Ending Vehs	420	425	351	397
Travel Distance (mi)	6846	6990	6923	7001
Travel Time (hr)	386.9	405.9	390.0	402.7
Total Delay (hr)	138.2	151.9	138.0	148.1
Total Stops	12119	13173	12140	12801
Fuel Used (gal)	279.3	289.2	282.1	287.9

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3185	3242	3253	3141	3187	3204	3247
Vehs Exited	3266	3317	3230	3251	3216	3202	3283
Starting Vehs	412	441	356	444	424	364	420
Ending Vehs	331	366	379	334	395	366	384
Travel Distance (mi)	1715	1733	1734	1706	1702	1707	1740
Travel Time (hr)	97.0	98.4	101.6	97.6	98.0	94.4	94.9
Total Delay (hr)	34.5	35.2	38.7	35.4	36.3	32.3	31.8
Total Stops	2982	3116	3299	3145	3295	2907	2878
Fuel Used (gal)	70.2	71.4	72.0	70.4	69.9	68.9	70.3

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3227	3210	3215	3208
Vehs Exited	3241	3183	3236	3242
Starting Vehs	403	387	414	408
Ending Vehs	389	414	393	377
Travel Distance (mi)	1739	1700	1723	1720
Travel Time (hr)	97.8	99.0	97.3	97.6
Total Delay (hr)	34.7	37.0	34.8	35.1
Total Stops	2982	3157	2998	3075
Fuel Used (gal)	70.7	70.3	69.8	70.4

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3533	3567	3389	3508	3511	3510	3489
Vehs Exited	3424	3514	3360	3408	3422	3466	3446
Starting Vehs	331	366	379	334	395	366	384
Ending Vehs	440	419	408	434	484	410	427
Travel Distance (mi)	1845	1911	1783	1843	1850	1862	1840
Travel Time (hr)	110.9	111.9	103.0	109.7	114.6	105.8	104.1
Total Delay (hr)	43.6	42.5	38.3	42.6	47.5	38.1	37.2
Total Stops	3604	3501	3330	3507	3816	3262	3269
Fuel Used (gal)	76.7	79.3	73.1	76.5	78.2	76.0	75.2

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3305	3403	3418	3462
Vehs Exited	3299	3374	3380	3407
Starting Vehs	389	414	393	377
Ending Vehs	395	443	431	426
Travel Distance (mi)	1764	1801	1804	1830
Travel Time (hr)	105.8	104.2	102.4	107.3
Total Delay (hr)	41.9	38.9	36.6	40.7
Total Stops	3466	3389	3185	3430
Fuel Used (gal)	73.7	74.6	73.9	75.7

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3178	3180	3334	3203	3250	3293	3302
Vehs Exited	3221	3244	3315	3275	3323	3302	3291
Starting Vehs	440	419	408	434	484	410	427
Ending Vehs	397	355	427	362	411	401	438
Travel Distance (mi)	1726	1719	1770	1740	1756	1751	1759
Travel Time (hr)	101.9	97.1	104.4	98.9	107.4	101.4	99.6
Total Delay (hr)	39.4	34.3	40.0	35.6	43.4	37.6	35.4
Total Stops	3232	2999	3505	3022	3713	3351	3157
Fuel Used (gal)	71.5	69.9	73.5	71.8	74.2	72.3	72.1

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3155	3193	3264	3234
Vehs Exited	3230	3250	3289	3274
Starting Vehs	395	443	431	426
Ending Vehs	320	386	406	386
Travel Distance (mi)	1696	1722	1733	1737
Travel Time (hr)	92.4	100.7	98.4	100.2
Total Delay (hr)	30.7	38.2	35.2	37.0
Total Stops	2826	3396	3101	3230
Fuel Used (gal)	68.5	71.5	70.9	71.6

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3187	3241	3288	3301	3272	3214	3201
Vehs Exited	3194	3252	3312	3217	3241	3270	3212
Starting Vehs	397	355	427	362	411	401	438
Ending Vehs	390	344	403	446	442	345	427
Travel Distance (mi)	1691	1701	1743	1740	1737	1743	1699
Travel Time (hr)	95.9	95.8	98.6	99.9	103.9	97.6	99.9
Total Delay (hr)	34.4	34.1	35.3	36.3	40.4	34.2	38.3
Total Stops	2951	3050	3021	3131	3378	2931	3242
Fuel Used (gal)	69.0	69.4	71.7	71.3	71.8	71.2	70.2

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3151	3324	3122	3227
Vehs Exited	3051	3285	3177	3222
Starting Vehs	320	386	406	386
Ending Vehs	420	425	351	397
Travel Distance (mi)	1648	1767	1663	1713
Travel Time (hr)	90.9	102.0	91.8	97.6
Total Delay (hr)	31.0	37.8	31.5	35.3
Total Stops	2845	3231	2856	3060
Fuel Used (gal)	66.4	72.9	67.4	70.1

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	11.6	3.6	3.9	4.5	23.5
Total Del/Veh (s)	36.3	18.1	11.4	11.6	18.9
Stop Delay (hr)	10.0	3.2	2.9	3.2	19.3
Stop Del/Veh (s)	31.4	15.9	8.7	8.1	15.5

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	1.7	2.0	5.4	3.7	12.8
Total Del/Veh (s)	16.7	16.5	9.8	9.0	10.8
Stop Delay (hr)	1.4	1.7	2.8	2.0	7.9
Stop Del/Veh (s)	13.1	13.9	5.1	5.0	6.7

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	3.1	0.1	0.2	2.9	1.0	1.1	0.0	0.0	0.0
Total Delay (hr)	4.4	1.1	0.1	1.0	1.1	3.0	0.7	11.9	1.3	9.8	8.1	0.8
Total Del/Veh (s)	60.4	45.2	14.5	64.6	59.3	21.8	74.8	35.6	39.0	64.8	19.8	7.8
Stop Delay (hr)	4.1	1.0	0.1	1.0	1.0	2.6	0.6	9.1	1.0	8.8	5.7	0.4
Stop Del/Veh (s)	56.4	41.0	14.4	61.0	52.8	19.2	70.1	27.3	32.3	57.9	14.0	3.6

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.4
Total Delay (hr)	43.2
Total Del/Veh (s)	32.9
Stop Delay (hr)	35.4
Stop Del/Veh (s)	27.0

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	2.8	2.8	6.5	0.1	11.5	0.1	6.4	30.3
Total Del/Veh (s)	31.6	29.1	25.8	2.8	21.2	27.0	17.0	21.7
Stop Delay (hr)	2.6	2.6	5.1	0.0	7.7	0.1	5.4	23.6
Stop Del/Veh (s)	29.2	26.5	20.4	1.4	14.2	20.8	14.3	16.9

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.2	0.0	0.0	0.1
Total Delay (hr)	6.8	0.5	1.3	1.3	9.9
Total Del/Veh (s)	36.6	9.7	5.1	5.2	13.3
Stop Delay (hr)	6.1	0.3	0.9	0.8	8.1
Stop Del/Veh (s)	32.8	6.8	3.5	3.3	10.9

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	B33	NB	NB	NB	NB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	281	293	308	207	213	118	289	180	151	45	273	260
Average Queue (ft)	200	216	223	115	121	4	214	79	66	6	150	143
95th Queue (ft)	265	282	294	182	190	86	303	141	123	27	236	229
Link Distance (ft)	1013	1013	1013	1013		611	54	54	54	54	204	204
Upstream Blk Time (%)						0	30	17	13	0	1	1
Queuing Penalty (veh)						0	91	52	40	1	7	4
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	SB
Directions Served	T
Maximum Queue (ft)	223
Average Queue (ft)	133
95th Queue (ft)	210
Link Distance (ft)	204
Upstream Blk Time (%)	1
Queuing Penalty (veh)	3
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	114	140	160	148	244	243	255	165	179	202
Average Queue (ft)	54	77	71	73	140	140	143	87	101	115
95th Queue (ft)	94	119	120	119	213	216	223	138	154	175
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					0	0	0			
Queuing Penalty (veh)					1	1	2			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Queuing and Blocking Report

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	L	T	TR	R	L	L
Maximum Queue (ft)	234	248	204	66	71	84	93	120	208	199	28	168
Average Queue (ft)	90	148	38	23	21	5	45	49	123	108	2	52
95th Queue (ft)	196	227	127	53	51	40	87	98	186	190	16	140
Link Distance (ft)			411	411				351	351	351		
Upstream Blk Time (%)			0									
Queuing Penalty (veh)			0									
Storage Bay Dist (ft)	263	263			167	237	237				143	143
Storage Blk Time (%)	0	1	0									0
Queuing Penalty (veh)	0	0	0									1

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	347	397	420	309	321	284	305	313	138
Average Queue (ft)	200	287	337	198	212	137	157	168	41
95th Queue (ft)	314	404	457	282	295	250	268	274	102
Link Distance (ft)	391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)	0	0	8						
Queuing Penalty (veh)	0	0	0						
Storage Bay Dist (ft)									
Storage Blk Time (%)	15								
Queuing Penalty (veh)	5								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

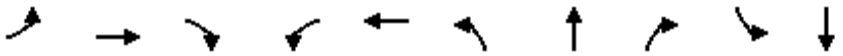
Movement	EB	EB	EB	EB	EB	EB	B14	B14	WB	WB	NB	NB
Directions Served	L	L	T	T	R	R	T	T	R	R	T	T
Maximum Queue (ft)	123	213	171	524	300	250	789	1105	79	66	286	335
Average Queue (ft)	45	114	94	321	265	187	115	234	13	9	138	181
95th Queue (ft)	99	191	149	622	368	357	643	884	55	42	251	305
Link Distance (ft)	440	440	440	440			1753	1753	568	568	488	488
Upstream Blk Time (%)				10			0	0				
Queuing Penalty (veh)				0			0	0				
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)				0	35	2						
Queuing Penalty (veh)				0	61	3						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	NB	NB	SB	SB	SB
Directions Served	T	TR	T	T	T
Maximum Queue (ft)	402	438	193	186	161
Average Queue (ft)	208	260	163	146	141
95th Queue (ft)	335	412	212	202	190
Link Distance (ft)	488	488	50	50	50
Upstream Blk Time (%)	0	0	34	33	33
Queuing Penalty (veh)	0	1	151	147	149
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	179	210	268	210	178	176	136	177	184
Average Queue (ft)	106	132	162	73	67	68	57	90	89
95th Queue (ft)	164	191	231	176	145	146	120	154	160
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					3	2	1	1	1
Queuing Penalty (veh)					8	7	4	5	6
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)	0	0	4	0					
Queuing Penalty (veh)	0	1	3	0					



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	76	717	43	239	565	76	109	217	43	206
v/c Ratio	0.46	0.71	0.08	0.63	0.26	0.37	0.50	0.58	0.24	0.54
Control Delay	47.0	30.1	0.3	37.7	15.5	41.5	45.0	12.6	41.0	33.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.0	30.1	0.3	37.7	15.5	41.5	45.0	12.6	41.0	33.0
Queue Length 50th (ft)	35	157	0	103	61	34	49	0	19	36
Queue Length 95th (ft)	95	285	0	222	110	93	123	67	61	89
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	599	3095	1397	838	4614	958	1008	956	958	1835
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.23	0.03	0.29	0.12	0.08	0.11	0.23	0.04	0.11

Intersection Summary

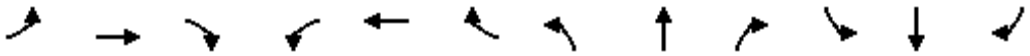
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	660	40	220	440	80	70	100	200	40	120	70
Future Volume (veh/h)	70	660	40	220	440	80	70	100	200	40	120	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	717	43	239	478	87	76	109	217	43	130	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	855	381	286	1483	264	295	310	263	168	208	115
Arrive On Green	0.05	0.24	0.24	0.16	0.34	0.34	0.17	0.17	0.17	0.09	0.09	0.09
Sat Flow, veh/h	1781	3554	1585	1781	4359	776	1781	1870	1585	1781	2211	1217
Grp Volume(v), veh/h	76	717	43	239	371	194	76	109	217	43	103	103
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1731	1781	1870	1585	1781	1777	1651
Q Serve(g_s), s	2.6	12.0	1.3	8.1	5.0	5.2	2.3	3.2	8.3	1.4	3.5	3.8
Cycle Q Clear(g_c), s	2.6	12.0	1.3	8.1	5.0	5.2	2.3	3.2	8.3	1.4	3.5	3.8
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		0.74
Lane Grp Cap(c), veh/h	97	855	381	286	1158	589	295	310	263	168	168	156
V/C Ratio(X)	0.78	0.84	0.11	0.84	0.32	0.33	0.26	0.35	0.83	0.26	0.61	0.66
Avail Cap(c_a), veh/h	712	3977	1774	997	3810	1937	1139	1196	1014	1139	1136	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	22.6	18.5	25.5	15.3	15.3	22.7	23.1	25.2	26.3	27.2	27.4
Incr Delay (d2), s/veh	5.1	0.9	0.0	2.5	0.1	0.1	0.2	0.3	2.5	0.3	1.4	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.7	0.5	3.4	1.8	1.9	0.9	1.4	3.1	0.6	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	23.5	18.6	28.0	15.3	15.5	22.9	23.4	27.7	26.6	28.6	29.2
LnGrp LOS	C	C	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		836			804			402			249	
Approach Delay, s/veh		24.2			19.1			25.6			28.5	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	26.5		11.4	15.1	20.3		15.8				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	4.6	7.2		5.8	10.1	14.0		10.3				
Green Ext Time (p_c), s	0.0	0.7		0.2	0.1	1.0		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		23.1
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	228	413	370	152	348	337	337	1011	65	261	1120	228
v/c Ratio	0.67	0.56	0.66	0.59	0.37	0.66	0.75	0.47	0.09	0.70	0.55	0.32
Control Delay	71.5	51.9	18.2	73.9	50.2	19.0	69.3	28.7	3.2	70.8	32.2	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.5	51.9	18.2	73.9	50.2	19.0	69.3	28.7	3.2	70.8	32.2	12.6
Queue Length 50th (ft)	96	166	56	64	95	49	142	214	0	110	256	44
Queue Length 95th (ft)	181	274	194	130	160	179	253	354	20	203	415	135
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	686	1147	710	686	1634	692	686	2875	931	686	2846	948
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.36	0.52	0.22	0.21	0.49	0.49	0.35	0.07	0.38	0.39	0.24

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	380	340	140	320	310	310	930	60	240	1030	210
Future Volume (veh/h)	210	380	340	140	320	310	310	930	60	240	1030	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	228	413	370	152	348	337	337	1011	65	261	1120	228
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	1004	448	204	1330	413	390	1999	621	314	1887	586
Arrive On Green	0.08	0.28	0.28	0.06	0.26	0.26	0.11	0.39	0.39	0.09	0.37	0.37
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	228	413	370	152	348	337	337	1011	65	261	1120	228
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	8.4	12.2	28.3	5.6	7.0	25.9	12.4	19.5	3.4	9.6	23.0	13.7
Cycle Q Clear(g_c), s	8.4	12.2	28.3	5.6	7.0	25.9	12.4	19.5	3.4	9.6	23.0	13.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	281	1004	448	204	1330	413	390	1999	621	314	1887	586
V/C Ratio(X)	0.81	0.41	0.83	0.74	0.26	0.82	0.86	0.51	0.10	0.83	0.59	0.39
Avail Cap(c_a), veh/h	666	1096	489	666	1575	489	666	2756	856	666	2756	856
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.6	37.8	43.5	60.0	38.1	45.0	56.5	29.9	25.0	58.0	33.0	30.1
Incr Delay (d2), s/veh	2.1	0.1	9.4	2.0	0.4	14.0	2.6	0.4	0.1	2.2	0.6	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	5.4	12.2	2.5	3.0	11.8	5.6	8.1	1.3	4.3	9.6	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.7	37.9	52.9	62.0	38.4	59.0	59.1	30.3	25.2	60.1	33.6	31.0
LnGrp LOS	E	D	D	E	D	E	E	C	C	E	C	C
Approach Vol, veh/h		1011			837			1413			1609	
Approach Delay, s/veh		48.5			51.0			37.0			37.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.1	53.7	16.1	39.8	17.3	56.6	13.2	42.6
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	14.4	25.0	10.4	27.9	11.6	21.5	7.6	30.3
Green Ext Time (p_c), s	0.2	23.0	0.1	5.9	0.2	18.7	0.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:05	3:05	3:05	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	15233	15176	15312	15005	14976	15117	15011
Vehs Exited	15191	15193	15301	14984	15003	15144	14956
Starting Vehs	417	421	455	461	427	449	397
Ending Vehs	459	404	466	482	400	422	452
Travel Distance (mi)	7897	7861	7947	7787	7783	7870	7808
Travel Time (hr)	477.5	460.7	494.0	498.9	463.1	471.4	461.1
Total Delay (hr)	189.6	175.0	204.9	215.4	179.6	184.6	177.3
Total Stops	14317	14008	14440	14162	13978	14135	14354
Fuel Used (gal)	332.6	327.9	338.3	334.9	326.6	330.6	326.4

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	15025	15250	15010	15112
Vehs Exited	15052	15228	14985	15105
Starting Vehs	432	432	451	433
Ending Vehs	405	454	476	442
Travel Distance (mi)	7825	7891	7792	7846
Travel Time (hr)	464.9	469.7	454.5	471.6
Total Delay (hr)	180.7	182.7	170.7	186.0
Total Stops	14077	14159	13992	14156
Fuel Used (gal)	327.3	332.2	324.2	330.1

Interval #0 Information Seeding

Start Time	3:05
End Time	3:15
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

SimTraffic Simulation Summary

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3740	3836	3644	3642	3648	3647	3698
Vehs Exited	3733	3805	3662	3703	3616	3665	3592
Starting Vehs	417	421	455	461	427	449	397
Ending Vehs	424	452	437	400	459	431	503
Travel Distance (mi)	1949	1996	1886	1912	1882	1922	1894
Travel Time (hr)	115.7	115.6	113.5	115.2	111.6	110.4	111.0
Total Delay (hr)	44.8	42.9	44.8	45.7	43.0	40.6	42.3
Total Stops	3500	3604	3425	3432	3439	3293	3573
Fuel Used (gal)	81.9	83.0	79.2	80.4	78.7	79.4	78.9

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3736	3751	3713	3704
Vehs Exited	3710	3751	3693	3693
Starting Vehs	432	432	451	433
Ending Vehs	458	432	471	444
Travel Distance (mi)	1943	1947	1933	1926
Travel Time (hr)	116.0	111.8	114.8	113.6
Total Delay (hr)	45.7	41.0	44.5	43.5
Total Stops	3486	3452	3666	3485
Fuel Used (gal)	81.1	80.9	80.7	80.4

SimTraffic Simulation Summary

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3973	3970	4005	3852	4052	4028	3966
Vehs Exited	3924	3936	3933	3745	3990	3981	3952
Starting Vehs	424	452	437	400	459	431	503
Ending Vehs	473	486	509	507	521	478	517
Travel Distance (mi)	2031	2020	2068	1986	2087	2073	2046
Travel Time (hr)	129.0	122.1	128.0	126.5	124.3	128.5	122.0
Total Delay (hr)	55.0	48.6	52.8	54.2	48.6	53.0	47.6
Total Stops	3747	3670	3770	3744	3760	3844	3694
Fuel Used (gal)	87.3	85.3	88.2	85.3	87.7	88.3	86.0

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3930	4031	3958	3975
Vehs Exited	3860	3937	3851	3910
Starting Vehs	458	432	471	444
Ending Vehs	528	526	578	513
Travel Distance (mi)	2013	2062	2028	2042
Travel Time (hr)	124.5	125.8	119.7	125.1
Total Delay (hr)	51.4	50.9	45.8	50.8
Total Stops	3804	3813	3661	3750
Fuel Used (gal)	85.7	87.4	84.8	86.6

SimTraffic Simulation Summary

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3777	3764	3815	3728	3624	3747	3661
Vehs Exited	3757	3781	3840	3778	3711	3809	3670
Starting Vehs	473	486	509	507	521	478	517
Ending Vehs	493	469	484	457	434	416	508
Travel Distance (mi)	1977	1963	1989	1947	1921	1946	1931
Travel Time (hr)	120.3	114.5	126.1	128.7	116.9	119.0	112.9
Total Delay (hr)	48.1	43.1	53.7	58.0	46.7	47.9	42.7
Total Stops	3730	3372	3583	3527	3442	3415	3477
Fuel Used (gal)	83.2	81.6	85.1	85.1	81.1	82.1	80.3

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3699	3684	3651	3713
Vehs Exited	3774	3740	3798	3764
Starting Vehs	528	526	578	513
Ending Vehs	453	470	431	463
Travel Distance (mi)	1956	1940	1938	1951
Travel Time (hr)	114.1	117.5	113.2	118.3
Total Delay (hr)	43.1	46.9	42.7	47.3
Total Stops	3429	3512	3393	3489
Fuel Used (gal)	81.3	82.3	80.9	82.3

SimTraffic Simulation Summary

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3743	3606	3848	3783	3652	3695	3686
Vehs Exited	3777	3671	3866	3758	3686	3689	3742
Starting Vehs	493	469	484	457	434	416	508
Ending Vehs	459	404	466	482	400	422	452
Travel Distance (mi)	1940	1882	2004	1942	1894	1929	1936
Travel Time (hr)	112.5	108.6	126.4	128.4	110.3	113.4	115.2
Total Delay (hr)	41.6	40.4	53.6	57.5	41.3	43.1	44.7
Total Stops	3340	3362	3662	3459	3337	3583	3610
Fuel Used (gal)	80.3	78.1	85.8	84.0	79.0	80.8	81.1

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3660	3784	3688	3714
Vehs Exited	3708	3800	3643	3733
Starting Vehs	453	470	431	463
Ending Vehs	405	454	476	442
Travel Distance (mi)	1913	1941	1893	1927
Travel Time (hr)	110.4	114.6	106.7	114.6
Total Delay (hr)	40.5	43.8	37.7	44.4
Total Stops	3358	3382	3272	3431
Fuel Used (gal)	79.2	81.6	77.7	80.7

SimTraffic Performance Report

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	14.6	2.6	7.4	4.7	29.3
Total Del/Veh (s)	38.6	14.7	14.2	13.0	20.4
Stop Delay (hr)	12.3	2.3	5.5	3.4	23.6
Stop Del/Veh (s)	32.5	13.0	10.6	9.5	16.4

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	2.1	3.2	8.4	3.3	17.0
Total Del/Veh (s)	24.2	24.8	11.6	8.2	12.6
Stop Delay (hr)	1.8	2.8	4.3	1.8	10.7
Stop Del/Veh (s)	20.7	21.7	5.9	4.6	8.0

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.2	6.0	0.2	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.9	0.2	0.3	14.7	13.6	15.5	0.0	0.0	0.0
Total Delay (hr)	5.6	1.0	0.1	2.3	1.9	4.3	1.2	23.2	0.7	12.0	8.5	0.7
Total Del/Veh (s)	67.6	52.0	15.0	64.5	56.8	27.2	86.4	52.5	50.3	74.0	23.2	8.3
Stop Delay (hr)	5.2	0.9	0.1	2.2	1.6	3.7	1.1	18.6	0.6	10.8	6.3	0.4
Stop Del/Veh (s)	63.3	47.7	14.8	60.1	49.7	23.9	79.5	42.2	41.9	66.4	17.1	4.5

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	6.5
Denied Del/Veh (s)	4.7
Total Delay (hr)	61.4
Total Del/Veh (s)	43.5
Stop Delay (hr)	51.5
Stop Del/Veh (s)	36.4

SimTraffic Performance Report

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay (hr)	5.6	0.8	3.2	1.0	15.2	0.1	6.2	32.0
Total Del/Veh (s)	34.0	25.6	14.9	9.2	22.5	21.3	16.1	20.2
Stop Delay (hr)	5.0	0.8	2.4	0.7	9.8	0.0	5.2	23.9
Stop Del/Veh (s)	30.6	24.0	11.1	6.6	14.5	14.6	13.4	15.1

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.4	0.3	0.0	0.0	0.1
Total Delay (hr)	5.1	1.4	2.0	1.6	10.1
Total Del/Veh (s)	36.4	14.5	4.9	5.0	10.4
Stop Delay (hr)	4.6	1.2	1.2	0.9	7.9
Stop Del/Veh (s)	33.0	11.9	3.0	2.8	8.1

Queuing and Blocking Report

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	B33	NB	NB	NB	NB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	365	382	390	167	178	124	298	259	272	76	253	235
Average Queue (ft)	247	264	274	93	96	4	267	147	146	21	150	141
95th Queue (ft)	331	353	363	143	151	91	319	234	239	59	227	214
Link Distance (ft)	1013	1013	1013	1013		611	54	54	54	54	204	204
Upstream Blk Time (%)						0	34	28	27	2	2	1
Queuing Penalty (veh)						0	159	129	126	12	7	3
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	SB
Directions Served	T
Maximum Queue (ft)	220
Average Queue (ft)	133
95th Queue (ft)	208
Link Distance (ft)	204
Upstream Blk Time (%)	1
Queuing Penalty (veh)	2
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	129	154	179	179	347	365	349	157	179	191
Average Queue (ft)	58	84	96	97	198	199	198	89	99	112
95th Queue (ft)	106	131	155	153	306	308	312	139	154	173
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					3	3	3			
Queuing Penalty (veh)					24	22	26			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Queuing and Blocking Report

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	B32	WB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	TR	T	L	L	T	TR	R	L
Maximum Queue (ft)	259	269	245	59	74	19	134	142	192	269	263	82
Average Queue (ft)	120	163	43	22	22	1	37	83	86	167	155	12
95th Queue (ft)	224	247	164	50	54	21	116	131	165	245	234	47
Link Distance (ft)			411	411		267			351	351	351	
Upstream Blk Time (%)			1								0	
Queuing Penalty (veh)			0								0	
Storage Bay Dist (ft)	263	263			167		237	237				143
Storage Blk Time (%)	0	1	0						0			0
Queuing Penalty (veh)	0	0	1						0			0

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	L	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	168	408	415	430	383	390	338	325	320	153
Average Queue (ft)	81	337	365	392	236	250	150	166	174	41
95th Queue (ft)	182	443	450	462	347	355	280	282	282	106
Link Distance (ft)		391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)		5	10	31		0				
Queuing Penalty (veh)		0	0	0		0				
Storage Bay Dist (ft)	143									
Storage Blk Time (%)	0	41								
Queuing Penalty (veh)	2	21								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	EB	EB	EB	EB	EB	EB	B14	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	R	T	R	R	T	T	T
Maximum Queue (ft)	223	344	75	452	300	250	92	165	150	445	476	508
Average Queue (ft)	115	206	34	93	207	111	4	79	59	202	242	266
95th Queue (ft)	201	304	65	335	340	304	70	151	126	385	431	462
Link Distance (ft)	440	440	440	440			1753	568	568	488	488	488
Upstream Blk Time (%)				1						0	0	0
Queuing Penalty (veh)				0						0	0	1
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)					15	0						
Queuing Penalty (veh)					8	0						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	NB	SB	SB	SB
Directions Served	TR	T	T	T
Maximum Queue (ft)	496	200	177	172
Average Queue (ft)	293	163	140	138
95th Queue (ft)	481	215	199	190
Link Distance (ft)	488	50	50	50
Upstream Blk Time (%)	0	33	32	32
Queuing Penalty (veh)	2	154	147	150
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	169	190	206	182	189	187	161	238	182
Average Queue (ft)	86	105	126	80	92	94	79	106	92
95th Queue (ft)	138	156	183	141	172	175	143	194	164
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					5	4	2	2	2
Queuing Penalty (veh)					24	20	12	14	10
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)	0	0	1	0					
Queuing Penalty (veh)	0	0	1	0					

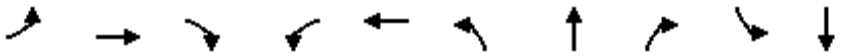
Appendix E

Analysis Worksheets for
Cumulative plus Proposed Project Conditions

Queues

1: White Rock Rd & Kilgore Rd

05/26/2022

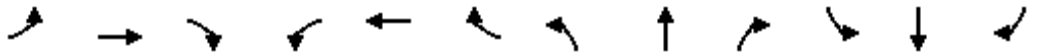


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	98	402	47	142	717	138	109	198	76	163
v/c Ratio	0.45	0.53	0.11	0.52	0.62	0.51	0.38	0.48	0.39	0.41
Control Delay	33.3	24.3	1.4	32.1	23.2	32.1	28.7	9.1	33.4	26.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.3	24.3	1.4	32.1	23.2	32.1	28.7	9.1	33.4	26.7
Queue Length 50th (ft)	32	64	0	45	78	44	34	0	25	24
Queue Length 95th (ft)	87	130	5	114	144	111	90	52	73	61
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	783	3475	1556	1096	5004	1254	1319	1179	1254	2413
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.12	0.03	0.13	0.14	0.11	0.08	0.17	0.06	0.07

Intersection Summary

HCM 6th Signalized Intersection Summary

1: White Rock Rd & Kilgore Rd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	370	43	131	590	70	127	100	182	70	110	40
Future Volume (veh/h)	90	370	43	131	590	70	127	100	182	70	110	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	402	47	142	641	76	138	109	198	76	120	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	614	274	182	909	107	294	309	262	158	231	79
Arrive On Green	0.07	0.17	0.17	0.10	0.20	0.20	0.17	0.17	0.17	0.09	0.09	0.09
Sat Flow, veh/h	1781	3554	1585	1781	4633	544	1781	1870	1585	1781	2595	892
Grp Volume(v), veh/h	98	402	47	142	469	248	138	109	198	76	81	82
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1772	1781	1870	1585	1781	1777	1710
Q Serve(g_s), s	2.4	4.7	1.1	3.5	5.8	5.9	3.2	2.3	5.4	1.8	1.9	2.1
Cycle Q Clear(g_c), s	2.4	4.7	1.1	3.5	5.8	5.9	3.2	2.3	5.4	1.8	1.9	2.1
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	125	614	274	182	668	348	294	309	262	158	158	152
V/C Ratio(X)	0.79	0.65	0.17	0.78	0.70	0.71	0.47	0.35	0.76	0.48	0.51	0.54
Avail Cap(c_a), veh/h	989	5525	2465	1385	5293	2756	1583	1662	1408	1583	1579	1519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	17.4	15.9	19.7	16.9	16.9	17.0	16.7	17.9	19.5	19.6	19.6
Incr Delay (d2), s/veh	4.1	0.4	0.1	2.7	0.5	1.0	0.4	0.3	1.7	0.8	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.7	0.4	1.4	2.0	2.2	1.2	0.9	1.8	0.7	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	17.8	16.0	22.5	17.4	17.9	17.4	16.9	19.6	20.4	20.5	20.7
LnGrp LOS	C	B	B	C	B	B	B	B	B	C	C	C
Approach Vol, veh/h		547			859			445			239	
Approach Delay, s/veh		18.9			18.4			18.3			20.5	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	14.0		9.5	9.7	13.0		12.8				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	4.4	7.9		4.1	5.5	6.7		7.4				
Green Ext Time (p_c), s	0.0	1.0		0.1	0.0	0.5		0.1				

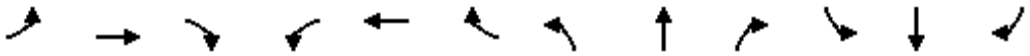
Intersection Summary			
HCM 6th Ctrl Delay		18.7	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

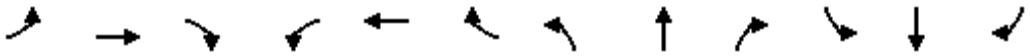
2: White Rock Rd & Sunrise Blvd 05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	284	229	141	87	299	130	424	870	76	261	870	168
v/c Ratio	0.67	0.30	0.31	0.42	0.37	0.36	0.71	0.44	0.11	0.65	0.51	0.27
Control Delay	57.2	39.3	8.7	61.7	45.5	11.3	52.1	25.8	4.8	57.7	31.4	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.2	39.3	8.7	61.7	45.5	11.3	52.1	25.8	4.8	57.7	31.4	9.2
Queue Length 50th (ft)	99	71	0	30	69	0	144	159	0	91	178	16
Queue Length 95th (ft)	179	132	56	70	123	59	252	247	27	167	268	73
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	805	1328	682	805	1918	678	805	3349	1071	805	3340	1085
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.17	0.21	0.11	0.16	0.19	0.53	0.26	0.07	0.32	0.26	0.15

Intersection Summary

HCM 6th Signalized Intersection Summary
2: White Rock Rd & Sunrise Blvd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	261	211	130	80	275	120	390	800	70	240	800	155
Future Volume (veh/h)	261	211	130	80	275	120	390	800	70	240	800	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	284	229	141	87	299	130	424	870	76	261	870	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	358	802	358	144	837	260	498	1996	620	335	1755	545
Arrive On Green	0.10	0.23	0.23	0.04	0.16	0.16	0.14	0.39	0.39	0.10	0.34	0.34
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	284	229	141	87	299	130	424	870	76	261	870	168
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	7.5	5.0	7.0	2.3	4.8	7.0	11.2	11.7	2.9	6.9	12.6	7.3
Cycle Q Clear(g_c), s	7.5	5.0	7.0	2.3	4.8	7.0	11.2	11.7	2.9	6.9	12.6	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	358	802	358	144	837	260	498	1996	620	335	1755	545
V/C Ratio(X)	0.79	0.29	0.39	0.60	0.36	0.50	0.85	0.44	0.12	0.78	0.50	0.31
Avail Cap(c_a), veh/h	927	1525	680	927	2192	680	927	3836	1191	927	3836	1191
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	29.9	30.7	43.9	34.6	35.5	38.9	20.8	18.2	41.1	24.2	22.4
Incr Delay (d2), s/veh	1.5	0.1	0.3	1.5	0.9	5.1	1.6	0.3	0.2	1.5	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	2.1	2.7	1.0	2.1	3.0	4.8	4.6	1.1	3.0	5.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	29.9	30.9	45.4	35.5	40.5	40.5	21.1	18.3	42.6	24.6	23.1
LnGrp LOS	D	C	C	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		654			516			1370			1299	
Approach Delay, s/veh		35.5			38.4			27.0			28.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.9	37.8	15.2	21.3	14.5	42.2	9.4	27.0
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	13.2	14.6	9.5	9.0	8.9	13.7	4.3	9.0
Green Ext Time (p_c), s	0.3	17.5	0.2	6.3	0.2	16.1	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	13843	13823	13726	13840	13675	13784	13880
Vehs Exited	13870	13841	13696	13802	13659	13764	13847
Starting Vehs	400	414	432	393	390	395	360
Ending Vehs	373	396	462	431	406	415	393
Travel Distance (mi)	7145	7111	7047	7121	7043	7097	7100
Travel Time (hr)	409.9	402.0	405.3	397.7	424.3	399.5	421.2
Total Delay (hr)	149.9	143.3	149.7	139.1	168.6	141.3	163.2
Total Stops	13137	12518	12879	12325	14149	12640	13999
Fuel Used (gal)	294.6	292.2	291.7	291.1	295.8	290.3	297.2

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	13874	13919	13702	13804
Vehs Exited	13832	13906	13642	13785
Starting Vehs	409	364	340	387
Ending Vehs	451	377	400	413
Travel Distance (mi)	7117	7166	7027	7097
Travel Time (hr)	410.7	412.8	404.7	408.8
Total Delay (hr)	151.6	152.0	149.0	150.8
Total Stops	13190	12981	13142	13093
Fuel Used (gal)	294.4	295.9	290.8	293.4

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3379	3477	3293	3283	3261	3353	3386
Vehs Exited	3365	3496	3371	3298	3257	3381	3388
Starting Vehs	400	414	432	393	390	395	360
Ending Vehs	414	395	354	378	394	367	358
Travel Distance (mi)	1733	1794	1695	1689	1666	1731	1731
Travel Time (hr)	103.1	101.4	94.3	92.8	92.2	95.7	93.8
Total Delay (hr)	39.8	36.1	33.1	31.6	31.6	32.7	31.0
Total Stops	3520	3185	3054	2832	2885	2964	2895
Fuel Used (gal)	72.4	73.7	69.8	68.5	67.4	70.4	69.9

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3384	3437	3317	3355
Vehs Exited	3427	3415	3259	3364
Starting Vehs	409	364	340	387
Ending Vehs	366	386	398	378
Travel Distance (mi)	1752	1758	1700	1725
Travel Time (hr)	97.9	99.5	95.8	96.6
Total Delay (hr)	34.1	35.2	33.8	33.9
Total Stops	2955	3085	3138	3048
Fuel Used (gal)	71.6	71.9	69.6	70.5

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3650	3658	3644	3634	3779	3668	3636
Vehs Exited	3643	3593	3554	3611	3668	3615	3527
Starting Vehs	414	395	354	378	394	367	358
Ending Vehs	421	460	444	401	505	420	467
Travel Distance (mi)	1877	1848	1869	1861	1914	1871	1830
Travel Time (hr)	109.4	101.7	106.3	104.2	119.9	109.6	109.5
Total Delay (hr)	41.1	34.6	38.5	36.7	50.2	41.5	43.3
Total Stops	3507	3021	3264	3247	4035	3561	3673
Fuel Used (gal)	78.2	75.4	76.8	76.1	81.8	77.4	76.9

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3661	3714	3644	3666
Vehs Exited	3588	3645	3581	3600
Starting Vehs	366	386	398	378
Ending Vehs	439	455	461	447
Travel Distance (mi)	1859	1889	1845	1866
Travel Time (hr)	109.8	108.5	109.4	108.9
Total Delay (hr)	42.1	39.8	42.2	41.0
Total Stops	3521	3339	3654	3480
Fuel Used (gal)	77.5	78.1	77.0	77.5

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3398	3324	3362	3418	3302	3370	3519
Vehs Exited	3434	3403	3426	3387	3360	3428	3547
Starting Vehs	421	460	444	401	505	420	467
Ending Vehs	385	381	380	432	447	362	439
Travel Distance (mi)	1769	1741	1746	1753	1725	1753	1790
Travel Time (hr)	99.0	100.8	98.9	97.1	109.3	98.3	111.2
Total Delay (hr)	34.7	37.3	35.5	33.4	46.8	34.4	45.8
Total Stops	3108	3146	3025	3088	3726	3140	3796
Fuel Used (gal)	72.3	72.1	71.9	71.7	73.7	71.8	76.3

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3454	3357	3374	3390
Vehs Exited	3504	3382	3474	3434
Starting Vehs	439	455	461	447
Ending Vehs	389	430	361	402
Travel Distance (mi)	1794	1747	1773	1759
Travel Time (hr)	105.2	103.7	103.6	102.7
Total Delay (hr)	40.1	40.1	39.2	38.7
Total Stops	3466	3410	3336	3324
Fuel Used (gal)	74.8	72.6	74.3	73.2

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3416	3364	3427	3505	3333	3393	3339
Vehs Exited	3428	3349	3345	3506	3374	3340	3385
Starting Vehs	385	381	380	432	447	362	439
Ending Vehs	373	396	462	431	406	415	393
Travel Distance (mi)	1766	1729	1737	1817	1739	1742	1749
Travel Time (hr)	98.4	98.1	105.8	103.5	103.0	95.8	106.6
Total Delay (hr)	34.4	35.4	42.6	37.4	40.0	32.6	43.1
Total Stops	3002	3166	3536	3158	3503	2975	3635
Fuel Used (gal)	71.7	71.0	73.2	74.8	72.8	70.7	74.1

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3375	3411	3367	3396
Vehs Exited	3313	3464	3328	3383
Starting Vehs	389	430	361	402
Ending Vehs	451	377	400	413
Travel Distance (mi)	1713	1771	1709	1747
Travel Time (hr)	97.7	101.2	95.9	100.6
Total Delay (hr)	35.3	36.9	33.8	37.1
Total Stops	3248	3147	3014	3235
Fuel Used (gal)	70.4	73.3	69.9	72.2

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	11.3	3.7	4.0	4.6	23.6
Total Del/Veh (s)	36.6	18.7	11.4	11.5	18.8
Stop Delay (hr)	9.8	3.3	3.0	3.2	19.3
Stop Del/Veh (s)	31.9	16.5	8.6	8.2	15.5

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	1.8	2.0	5.2	3.7	12.7
Total Del/Veh (s)	16.5	16.6	9.6	9.0	10.7
Stop Delay (hr)	1.4	1.7	2.7	2.0	7.8
Stop Del/Veh (s)	12.8	14.0	5.0	4.9	6.6

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	3.1	0.1	0.2	2.5	0.4	0.8	0.0	0.0	0.0
Total Delay (hr)	4.4	1.0	0.1	0.9	1.0	3.0	0.6	10.1	1.0	9.9	7.4	0.8
Total Del/Veh (s)	61.1	43.1	15.3	65.0	57.3	19.8	71.0	30.7	30.1	63.4	18.4	7.9
Stop Delay (hr)	4.1	0.9	0.1	0.8	0.9	2.6	0.6	7.7	0.8	8.8	5.0	0.4
Stop Del/Veh (s)	57.4	38.9	15.2	61.6	50.8	17.3	66.5	23.4	24.0	56.4	12.5	3.6

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.2
Total Delay (hr)	40.2
Total Del/Veh (s)	30.6
Stop Delay (hr)	32.7
Stop Del/Veh (s)	24.9

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	2.6	2.8	7.2	0.1	13.1	0.1	6.6	32.5
Total Del/Veh (s)	29.8	29.1	28.3	2.5	23.7	23.3	17.3	23.0
Stop Delay (hr)	2.4	2.6	5.7	0.0	9.2	0.0	5.5	25.5
Stop Del/Veh (s)	27.6	26.5	22.6	1.1	16.6	16.4	14.5	18.1

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.2	0.0	0.0	0.1
Total Delay (hr)	6.8	0.5	1.4	1.4	10.2
Total Del/Veh (s)	36.8	9.9	5.3	5.6	13.5
Stop Delay (hr)	6.1	0.4	0.9	0.9	8.3
Stop Del/Veh (s)	32.9	7.0	3.6	3.5	11.0

Queuing and Blocking Report

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	B33	NB	NB	NB	NB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	291	309	319	224	236	63	290	192	161	50	249	253
Average Queue (ft)	196	209	214	119	124	4	211	85	66	7	145	142
95th Queue (ft)	264	281	289	191	203	91	303	158	131	31	226	222
Link Distance (ft)	1013	1013	1013	1013		611	54	54	54	54	204	204
Upstream Blk Time (%)						0	30	17	14	0	1	1
Queuing Penalty (veh)						0	94	54	44	1	6	4
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	SB
Directions Served	T
Maximum Queue (ft)	215
Average Queue (ft)	133
95th Queue (ft)	208
Link Distance (ft)	204
Upstream Blk Time (%)	0
Queuing Penalty (veh)	2
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	114	143	152	150	260	249	261	155	174	191
Average Queue (ft)	54	78	71	73	136	140	139	85	101	113
95th Queue (ft)	96	121	118	121	216	218	222	130	152	172
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					0	0	0			
Queuing Penalty (veh)					2	1	2			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	L	T	TR	R	L	L
Maximum Queue (ft)	206	227	118	64	73	62	103	126	222	208	31	166
Average Queue (ft)	85	131	29	22	21	3	37	46	125	111	4	44
95th Queue (ft)	167	199	81	51	52	28	81	100	186	189	19	122
Link Distance (ft)			411	411				351	351	351		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	263	263			167	237	237				143	143
Storage Blk Time (%)		0	0									0
Queuing Penalty (veh)		0	0									0

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	334	379	414	307	316	261	278	290	160
Average Queue (ft)	199	252	288	200	211	127	147	159	40
95th Queue (ft)	302	363	414	285	297	236	248	260	104
Link Distance (ft)	391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)	0	0	2						
Queuing Penalty (veh)	0	0	0						
Storage Bay Dist (ft)									
Storage Blk Time (%)	17								
Queuing Penalty (veh)	5								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

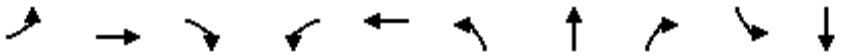
Movement	EB	EB	EB	EB	EB	EB	B14	B14	WB	WB	NB	NB
Directions Served	L	L	T	T	R	R	T	T	R	R	T	T
Maximum Queue (ft)	134	199	232	525	300	250	797	1047	78	70	302	341
Average Queue (ft)	57	97	99	333	275	203	185	281	12	7	167	206
95th Queue (ft)	114	169	196	640	357	357	886	1027	51	37	291	329
Link Distance (ft)	440	440	440	440			1753	1753	568	568	488	488
Upstream Blk Time (%)				13				0				
Queuing Penalty (veh)				0				0				
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)				0	40	2						
Queuing Penalty (veh)				1	69	3						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	NB	NB	SB	SB	SB
Directions Served	T	TR	T	T	T
Maximum Queue (ft)	382	419	201	179	170
Average Queue (ft)	227	262	164	145	142
95th Queue (ft)	352	397	213	203	190
Link Distance (ft)	488	488	50	50	50
Upstream Blk Time (%)			34	33	33
Queuing Penalty (veh)			153	147	147
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

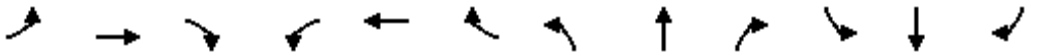
Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	194	242	267	200	164	168	142	200	190
Average Queue (ft)	107	133	160	69	70	70	63	96	91
95th Queue (ft)	166	205	233	163	138	141	126	171	166
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					2	2	1	2	2
Queuing Penalty (veh)					7	6	5	8	8
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)	0	1	3	0					
Queuing Penalty (veh)	0	2	3	0					



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	76	717	93	284	565	105	109	245	43	206
v/c Ratio	0.49	0.73	0.18	0.60	0.25	0.54	0.54	0.63	0.26	0.57
Control Delay	52.5	34.1	6.5	35.1	15.1	50.8	49.8	13.5	44.9	36.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.5	34.1	6.5	35.1	15.1	50.8	49.8	13.5	44.9	36.7
Queue Length 50th (ft)	39	181	0	131	63	54	56	0	22	41
Queue Length 95th (ft)	100	305	35	266	110	128	130	74	65	94
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	537	2915	1321	752	4448	859	904	894	859	1651
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.25	0.07	0.38	0.13	0.12	0.12	0.27	0.05	0.12

Intersection Summary



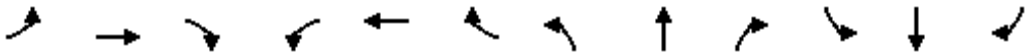
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	660	86	261	440	80	97	100	225	40	120	70
Future Volume (veh/h)	70	660	86	261	440	80	97	100	225	40	120	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	717	93	284	478	87	105	109	245	43	130	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	841	375	328	1570	279	321	337	286	163	203	112
Arrive On Green	0.05	0.24	0.24	0.18	0.36	0.36	0.18	0.18	0.18	0.09	0.09	0.09
Sat Flow, veh/h	1781	3554	1585	1781	4359	776	1781	1870	1585	1781	2211	1217
Grp Volume(v), veh/h	76	717	93	284	371	194	105	109	245	43	103	103
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1731	1781	1870	1585	1781	1777	1651
Q Serve(g_s), s	2.9	13.3	3.3	10.7	5.4	5.6	3.5	3.5	10.3	1.5	3.9	4.2
Cycle Q Clear(g_c), s	2.9	13.3	3.3	10.7	5.4	5.6	3.5	3.5	10.3	1.5	3.9	4.2
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		0.74
Lane Grp Cap(c), veh/h	97	841	375	328	1226	623	321	337	286	163	163	151
V/C Ratio(X)	0.78	0.85	0.25	0.87	0.30	0.31	0.33	0.32	0.86	0.26	0.63	0.68
Avail Cap(c_a), veh/h	646	3606	1609	904	3455	1756	1033	1085	919	1033	1030	958
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	25.2	21.3	27.3	15.8	15.9	24.6	24.6	27.4	29.2	30.2	30.4
Incr Delay (d2), s/veh	5.0	1.0	0.1	2.7	0.1	0.1	0.2	0.2	2.9	0.3	1.5	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.4	1.2	4.6	2.0	2.1	1.4	1.5	3.9	0.7	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.2	26.1	21.5	30.1	15.9	16.0	24.8	24.8	30.3	29.5	31.7	32.4
LnGrp LOS	D	C	C	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		886			849			459			249	
Approach Delay, s/veh		26.6			20.7			27.7			31.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	30.0		11.8	17.8	21.5		17.8				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	4.9	7.6		6.2	12.7	15.3		12.3				
Green Ext Time (p_c), s	0.0	0.7		0.2	0.1	1.0		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		25.3	
HCM 6th LOS		C	

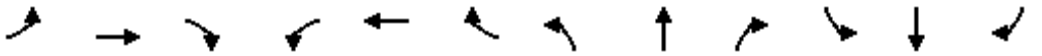
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	248	420	370	152	360	337	337	1011	65	261	1120	262
v/c Ratio	0.70	0.55	0.65	0.60	0.38	0.66	0.76	0.47	0.09	0.71	0.55	0.36
Control Delay	73.3	52.2	18.0	76.1	51.5	19.9	71.8	29.4	3.1	72.9	32.9	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.3	52.2	18.0	76.1	51.5	19.9	71.8	29.4	3.1	72.9	32.9	13.0
Queue Length 50th (ft)	109	174	57	67	102	54	147	220	0	114	263	53
Queue Length 95th (ft)	196	278	193	131	166	186	256	361	20	205	423	156
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	669	1127	703	669	1595	679	669	2816	914	669	2778	938
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.37	0.53	0.23	0.23	0.50	0.50	0.36	0.07	0.39	0.40	0.28

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	386	340	140	331	310	310	930	60	240	1030	241
Future Volume (veh/h)	228	386	340	140	331	310	310	930	60	240	1030	241
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	248	420	370	152	360	337	337	1011	65	261	1120	262
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	1020	455	204	1322	410	389	1996	620	313	1884	585
Arrive On Green	0.09	0.29	0.29	0.06	0.26	0.26	0.11	0.39	0.39	0.09	0.37	0.37
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	248	420	370	152	360	337	337	1011	65	261	1120	262
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	9.3	12.6	28.7	5.7	7.4	26.4	12.7	19.9	3.4	9.8	23.4	16.5
Cycle Q Clear(g_c), s	9.3	12.6	28.7	5.7	7.4	26.4	12.7	19.9	3.4	9.8	23.4	16.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	300	1020	455	204	1322	410	389	1996	620	313	1884	585
V/C Ratio(X)	0.83	0.41	0.81	0.75	0.27	0.82	0.87	0.51	0.10	0.83	0.59	0.45
Avail Cap(c_a), veh/h	654	1076	480	654	1546	480	654	2705	840	654	2705	840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.3	38.1	43.8	61.2	39.0	46.1	57.7	30.6	25.6	59.1	33.7	31.5
Incr Delay (d2), s/veh	2.2	0.1	9.0	2.1	0.4	14.5	3.1	0.4	0.2	2.2	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	5.6	12.4	2.6	3.2	12.0	5.7	8.3	1.3	4.4	9.8	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.6	38.2	52.8	63.3	39.4	60.5	60.7	31.0	25.7	61.3	34.3	32.6
LnGrp LOS	E	D	D	E	D	E	E	C	C	E	C	C
Approach Vol, veh/h		1038			849			1413			1643	
Approach Delay, s/veh		49.0			52.1			37.8			38.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	54.6	17.0	40.2	17.5	57.5	13.3	43.9
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	14.7	25.4	11.3	28.4	11.8	21.9	7.7	30.7
Green Ext Time (p_c), s	0.2	23.3	0.2	5.8	0.2	18.6	0.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:05	3:05	3:05	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	15372	15149	15250	15093	14948	15220	15288
Vehs Exited	15372	15151	15241	15040	14916	15129	15255
Starting Vehs	488	454	442	423	445	445	452
Ending Vehs	488	452	451	476	477	536	485
Travel Distance (mi)	7981	7837	7875	7829	7741	7864	7921
Travel Time (hr)	535.8	490.5	562.0	481.4	463.4	508.2	495.6
Total Delay (hr)	245.5	205.6	274.8	196.1	181.9	221.5	207.4
Total Stops	15672	14474	15579	14913	14189	14306	14697
Fuel Used (gal)	349.2	335.3	352.1	331.5	324.4	339.3	338.1

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	15450	15392	15349	15251
Vehs Exited	15412	15337	15284	15214
Starting Vehs	499	417	436	450
Ending Vehs	537	472	501	488
Travel Distance (mi)	8005	7947	7969	7897
Travel Time (hr)	552.1	483.8	535.7	510.8
Total Delay (hr)	261.1	194.3	246.1	223.4
Total Stops	16449	14557	14564	14935
Fuel Used (gal)	352.8	336.1	347.7	340.7

Interval #0 Information Seeding

Start Time	3:05
End Time	3:15
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

SimTraffic Simulation Summary

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3807	3703	3697	3660	3576	3662	3736
Vehs Exited	3825	3752	3593	3618	3493	3698	3727
Starting Vehs	488	454	442	423	445	445	452
Ending Vehs	470	405	546	465	528	409	461
Travel Distance (mi)	1980	1927	1873	1901	1837	1919	1930
Travel Time (hr)	118.6	119.2	147.1	115.2	109.7	111.6	116.0
Total Delay (hr)	46.6	48.9	78.7	46.2	43.0	41.7	45.9
Total Stops	3674	3614	4247	3611	3366	3445	3461
Fuel Used (gal)	83.0	82.7	87.1	80.2	76.8	79.8	81.4

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3782	3789	3760	3719
Vehs Exited	3839	3811	3696	3707
Starting Vehs	499	417	436	450
Ending Vehs	442	395	500	461
Travel Distance (mi)	1995	1973	1932	1927
Travel Time (hr)	121.9	118.2	119.7	119.7
Total Delay (hr)	49.4	46.4	49.4	49.6
Total Stops	3726	3487	3604	3624
Fuel Used (gal)	84.0	83.3	81.8	82.0

SimTraffic Simulation Summary

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4158	4003	4058	3965	4043	4037	4112
Vehs Exited	4068	3880	4063	3905	4070	3948	4045
Starting Vehs	470	405	546	465	528	409	461
Ending Vehs	560	528	541	525	501	498	528
Travel Distance (mi)	2117	2035	2105	2026	2089	2059	2116
Travel Time (hr)	141.6	131.2	138.7	122.3	125.4	129.4	140.8
Total Delay (hr)	64.3	57.1	61.8	48.5	49.3	54.2	63.8
Total Stops	4206	3792	4219	3801	3641	3781	4028
Fuel Used (gal)	92.9	87.9	91.7	85.0	88.0	88.4	92.5

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3999	4040	4008	4041
Vehs Exited	3838	3963	3948	3973
Starting Vehs	442	395	500	461
Ending Vehs	603	472	560	527
Travel Distance (mi)	2034	2054	2076	2071
Travel Time (hr)	137.3	129.2	135.5	133.2
Total Delay (hr)	63.3	54.2	59.9	57.6
Total Stops	4104	3826	3885	3927
Fuel Used (gal)	89.0	87.6	89.3	89.2

SimTraffic Simulation Summary

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3752	3747	3739	3695	3650	3714	3744
Vehs Exited	3796	3829	3835	3775	3711	3727	3757
Starting Vehs	560	528	541	525	501	498	528
Ending Vehs	516	446	445	445	440	485	515
Travel Distance (mi)	1965	1968	1955	1965	1929	1924	1949
Travel Time (hr)	136.4	120.1	136.2	125.7	116.5	132.9	125.0
Total Delay (hr)	65.0	48.7	64.9	54.0	46.4	62.6	53.8
Total Stops	3877	3550	3512	3877	3661	3548	3763
Fuel Used (gal)	86.8	83.0	86.5	84.7	80.8	85.0	84.0

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3831	3757	3710	3734
Vehs Exited	3895	3781	3829	3793
Starting Vehs	603	472	560	527
Ending Vehs	539	448	441	472
Travel Distance (mi)	1981	1970	1973	1958
Travel Time (hr)	140.6	119.0	143.2	129.6
Total Delay (hr)	68.7	47.1	71.7	58.3
Total Stops	3974	3603	3504	3684
Fuel Used (gal)	87.9	83.3	89.0	85.1

SimTraffic Simulation Summary

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3655	3696	3756	3773	3679	3807	3696
Vehs Exited	3683	3690	3750	3742	3642	3756	3726
Starting Vehs	516	446	445	445	440	485	515
Ending Vehs	488	452	451	476	477	536	485
Travel Distance (mi)	1919	1907	1942	1937	1887	1961	1926
Travel Time (hr)	139.2	119.9	139.9	118.1	111.8	134.3	113.8
Total Delay (hr)	69.6	50.9	69.3	47.4	43.2	63.0	43.9
Total Stops	3915	3518	3601	3624	3521	3532	3445
Fuel Used (gal)	86.4	81.8	86.8	81.5	78.8	86.2	80.3

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3838	3806	3871	3757
Vehs Exited	3840	3782	3811	3741
Starting Vehs	539	448	441	472
Ending Vehs	537	472	501	488
Travel Distance (mi)	1995	1949	1987	1941
Travel Time (hr)	152.2	117.4	137.3	128.4
Total Delay (hr)	79.7	46.6	65.1	57.9
Total Stops	4645	3641	3571	3702
Fuel Used (gal)	91.9	82.0	87.6	84.3

SimTraffic Performance Report

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	14.9	2.8	7.4	4.8	29.9
Total Del/Veh (s)	39.0	15.6	14.3	13.2	20.7
Stop Delay (hr)	12.6	2.5	5.6	3.6	24.2
Stop Del/Veh (s)	32.9	13.8	10.7	9.8	16.7

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	1.9	3.0	8.0	3.3	16.2
Total Del/Veh (s)	22.8	24.0	11.0	8.0	12.0
Stop Delay (hr)	1.6	2.7	3.9	1.8	9.9
Stop Del/Veh (s)	19.4	21.0	5.3	4.4	7.4

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.6	19.7	0.7	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.8	0.2	0.3	42.0	44.4	44.9	0.0	0.0	0.0
Total Delay (hr)	6.0	1.0	0.1	2.5	1.8	4.9	1.4	27.9	1.0	17.6	9.7	0.6
Total Del/Veh (s)	70.0	50.0	14.0	67.9	57.3	28.9	92.4	63.4	66.9	99.8	26.6	8.1
Stop Delay (hr)	5.6	0.9	0.1	2.4	1.6	4.3	1.3	23.0	0.8	16.0	7.3	0.3
Stop Del/Veh (s)	65.5	46.0	13.9	63.5	50.2	25.3	85.3	52.2	57.7	90.7	20.1	4.2

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	21.2
Denied Del/Veh (s)	14.8
Total Delay (hr)	74.4
Total Del/Veh (s)	51.7
Stop Delay (hr)	63.5
Stop Del/Veh (s)	44.1

SimTraffic Performance Report

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay (hr)	5.5	0.9	5.3	1.1	16.8	0.1	6.8	36.5
Total Del/Veh (s)	34.4	26.9	23.3	10.0	24.5	24.9	17.5	22.7
Stop Delay (hr)	5.0	0.8	4.2	0.8	11.2	0.1	5.7	27.8
Stop Del/Veh (s)	31.1	25.1	18.7	7.3	16.3	18.0	14.7	17.3

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.4	0.3	0.0	0.0	0.1
Total Delay (hr)	5.1	1.5	2.2	1.6	10.4
Total Del/Veh (s)	36.2	14.2	5.2	5.1	10.5
Stop Delay (hr)	4.6	1.2	1.4	1.0	8.1
Stop Del/Veh (s)	32.7	11.3	3.3	3.0	8.2

Queuing and Blocking Report

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	B33	NB	NB	NB	NB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	350	368	380	188	195	63	301	254	273	86	258	262
Average Queue (ft)	247	263	272	101	106	2	268	147	148	23	152	147
95th Queue (ft)	332	349	362	167	173	64	319	236	245	63	230	232
Link Distance (ft)	1013	1013	1013	1013		611	54	54	54	54	204	204
Upstream Blk Time (%)						0	34	28	28	3	2	1
Queuing Penalty (veh)						0	162	132	129	15	7	5
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	SB
Directions Served	T
Maximum Queue (ft)	221
Average Queue (ft)	138
95th Queue (ft)	207
Link Distance (ft)	204
Upstream Blk Time (%)	1
Queuing Penalty (veh)	2
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	118	132	174	174	308	324	328	158	181	199
Average Queue (ft)	53	77	93	94	187	186	188	87	102	113
95th Queue (ft)	96	116	150	149	285	286	297	140	158	176
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					2	2	2			
Queuing Penalty (veh)					16	14	18			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)			0							
Queuing Penalty (veh)			0							

Queuing and Blocking Report

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	L	T	TR	R	L	L
Maximum Queue (ft)	261	270	234	47	58	146	152	208	302	286	52	168
Average Queue (ft)	129	171	34	19	19	47	89	86	182	170	14	92
95th Queue (ft)	235	255	120	45	47	135	140	168	266	252	42	193
Link Distance (ft)			411	411				351	351	351		
Upstream Blk Time (%)									0	0		
Queuing Penalty (veh)									0	0		
Storage Bay Dist (ft)	263	263			167	237	237				143	143
Storage Blk Time (%)	0	1	0					0				0
Queuing Penalty (veh)	0	0	1					0				2

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	413	424	434	463	459	448	454	468	259
Average Queue (ft)	352	382	403	314	321	211	213	227	48
95th Queue (ft)	440	445	441	476	473	428	407	445	180
Link Distance (ft)	391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)	10	20	47	1	0	1	1	3	0
Queuing Penalty (veh)	0	0	0	3	2	3	4	12	0
Storage Bay Dist (ft)									
Storage Blk Time (%)	48								
Queuing Penalty (veh)	25								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	EB	EB	EB	EB	EB	EB	B14	B14	WB	WB	NB	NB
Directions Served	L	L	T	T	R	R	T	T	R	R	T	T
Maximum Queue (ft)	264	351	121	515	300	250	573	666	172	171	441	482
Average Queue (ft)	116	202	37	189	241	151	100	138	86	62	224	267
95th Queue (ft)	213	310	94	532	357	342	690	774	156	134	407	457
Link Distance (ft)	440	440	440	440			1753	1753	568	568	488	488
Upstream Blk Time (%)				8			0	1			0	0
Queuing Penalty (veh)				0			0	0			0	1
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)				0	27	1						
Queuing Penalty (veh)				0	15	1						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	NB	NB	SB	SB	SB
Directions Served	T	TR	T	T	T
Maximum Queue (ft)	512	505	194	179	173
Average Queue (ft)	286	314	167	143	139
95th Queue (ft)	482	510	213	202	194
Link Distance (ft)	488	488	50	50	50
Upstream Blk Time (%)	0	1	36	33	34
Queuing Penalty (veh)	1	5	165	155	156
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	168	192	210	199	191	189	164	229	197
Average Queue (ft)	88	105	124	80	100	101	85	110	99
95th Queue (ft)	137	159	177	140	188	186	149	198	173
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					6	5	3	3	2
Queuing Penalty (veh)					30	26	16	16	12
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)	0	0	0	0					
Queuing Penalty (veh)	0	0	1	0					

Appendix F

Analysis Worksheets for Signal Warrants

Traffic Signal Warrants Worksheet Warrant 3:
Peak Hour
Source: MUTCD 2012 California Supplement

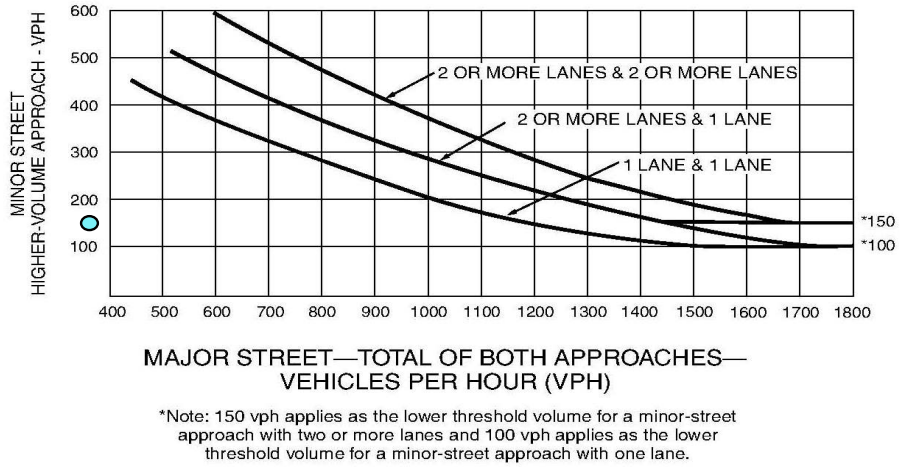
Scenario: Existing Plus Project Conditions AM
Intersection: Kilgore Rd AND Project Driveway
Comments:

	PART A or PART B	SATISFIED	NO
PART A (All parts 1, 2, and 3 below must be satisfied)		SATISFIED	**NO**
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND			No
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND			Yes
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.			No
PART B		SATISFIED	**No**

APPROACH LANES	One	2 or More
Both Approaches - Major Street		373
Highest Approach - Minor Street	157	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet Warrant 3:
Peak Hour
Source: MUTCD 2012 California Supplement

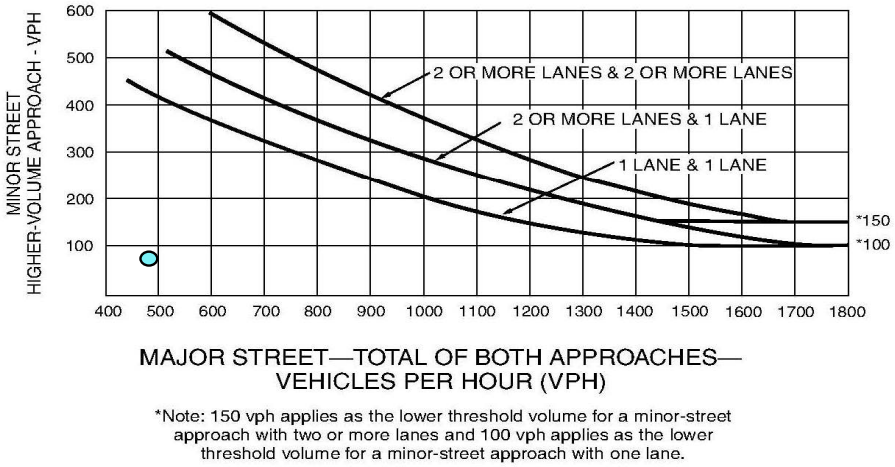
Scenario: Existing Plus Project Conditions PM
Intersection: Kilgore Rd AND Project Driveway
Comments:

	PART A or PART B	SATISFIED	**NO**
PART A (All parts 1, 2, and 3 below must be satisfied)		SATISFIED	**NO**
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND			No
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND			No
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.			No
PART B		SATISFIED	**No**

APPROACH LANES	One	2 or More
Both Approaches - Major Street		497
Highest Approach - Minor Street	91	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet Warrant 3:
Peak Hour
Source: MUTCD 2012 California Supplement

Scenario: Cumulative Year Conditions AM
Intersection: Kilgore Rd AND Project Driveway
Comments:

	PART A or PART B	SATISFIED	**NO**

PART A
(All parts 1, 2, and 3 below must be satisfied) SATISFIED **NO**

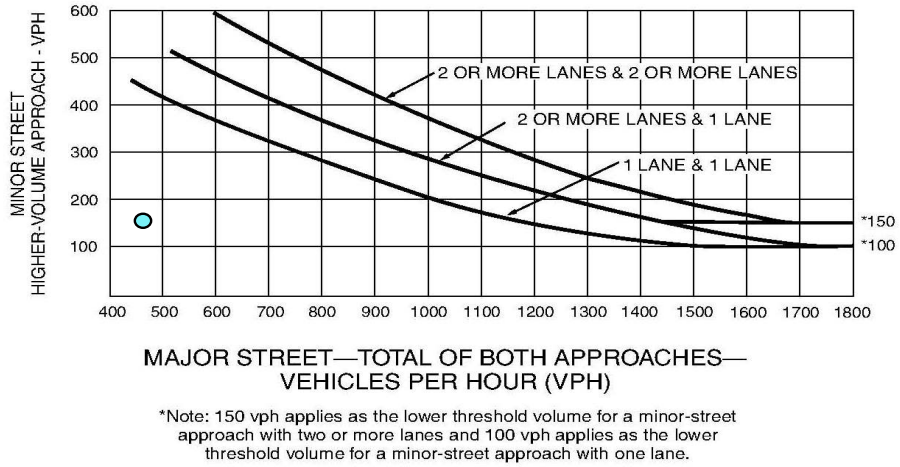
1.	The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND	No
2.	The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	Yes
3.	The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.	No

PART B SATISFIED **No**

APPROACH LANES	One	2 or More
Both Approaches - Major Street		471
Highest Approach - Minor Street	157	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet Warrant 3: Peak Hour
Source: MUTCD 2012 California Supplement

Scenario: Cumulative Year Conditions PM
Intersection: Kilgore Rd AND Project Driveway
Comments:

	PART A or PART B	SATISFIED	**NO**

PART A
(All parts 1, 2, and 3 below must be satisfied) SATISFIED **NO**

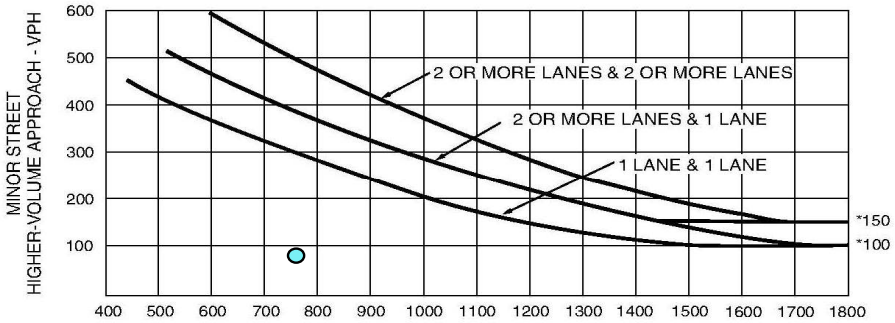
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND — No
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND — No
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches. — Yes

PART B SATISFIED **No**

APPROACH LANES	One	2 or More
Both Approaches - Major Street		764
Highest Approach - Minor Street	91	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet
Warrant 3: Peak Hour
Source: MUTCD 2012 California Supplement

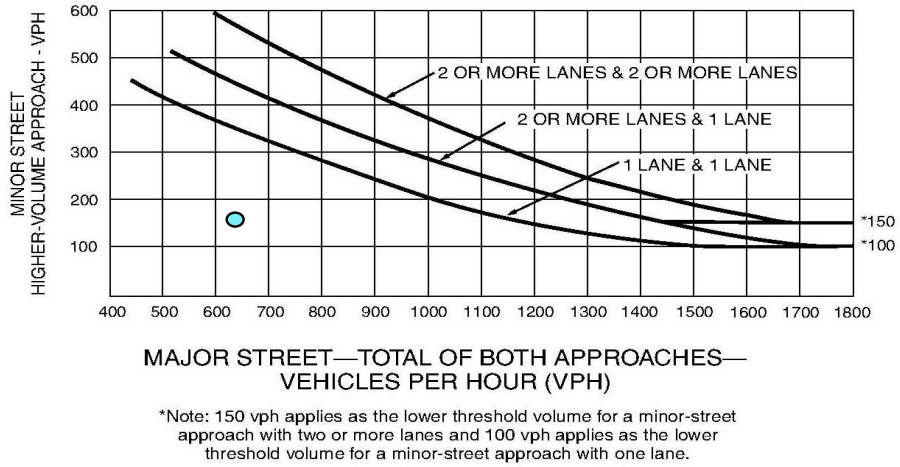
Scenario: Cumulative Year Plus Project Conditions AM
Intersection: Kilgore Rd AND Project Driveway
Comments:

	PART A or PART B	SATISFIED	NO
PART A (All parts 1, 2, and 3 below must be satisfied)		SATISFIED	**NO**
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND			No
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND			Yes
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.			Yes
PART B		SATISFIED	**No**

APPROACH LANES	One	2 or More
Both Approaches - Major Street		637
Highest Approach - Minor Street	157	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet
Warrant 3: Peak Hour
Source: MUTCD 2012 California Supplement

Scenario: Cumulative Year Plus Project Conditions PM
Intersection: Kilgore Rd AND Project Driveway
Comments:

	PART A or PART B	SATISFIED	**NO**

PART A
(All parts 1, 2, and 3 below must be satisfied) SATISFIED **NO**

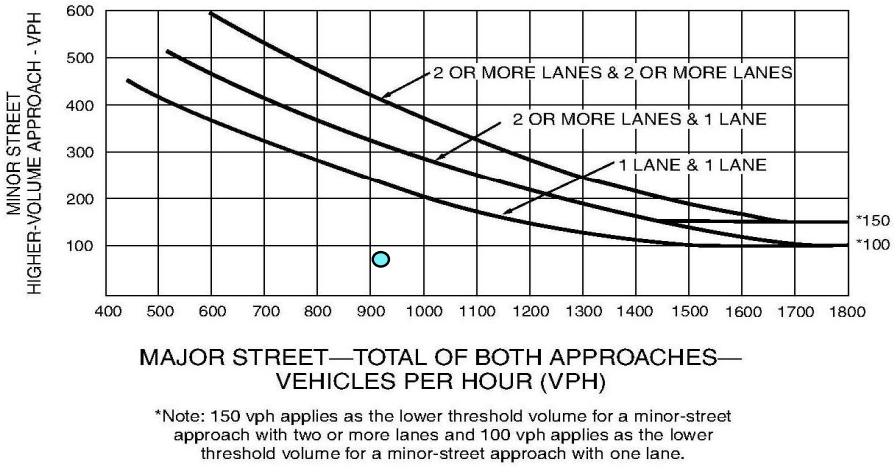
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND — No
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND — No
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches. — Yes

PART B SATISFIED **No**

APPROACH LANES	One	2 or More
Both Approaches - Major Street		910
Highest Approach - Minor Street	91	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Appendix G

Streetlight Data Sheets

Location: Sunrise Blvd & US-50 EB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-003
Date: 1/11/2022

Streetlight Data - Totals

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				US-50 EB Ramps				US-50 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	4	2	0	0	3	2	0	3	0	2	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	95	0	0	0	286	0	0	104	0	92	0	0	0	0	0	577
6:15 AM	0	148	0	0	0	244	0	0	113	0	104	0	0	0	0	0	609
6:30 AM	0	179	0	0	0	392	0	0	168	0	122	0	0	0	0	0	861
6:45 AM	0	208	0	0	0	359	0	0	180	0	134	0	0	0	0	0	881
7:00 AM	0	204	0	0	0	383	0	0	201	0	146	0	0	0	0	0	934
7:15 AM	0	217	0	0	0	270	0	0	296	0	162	0	0	0	0	0	945
7:30 AM	0	263	0	0	0	379	0	0	273	0	193	0	0	0	0	0	1108
7:45 AM	0	262	0	0	0	495	0	0	344	0	225	0	0	0	0	0	1326
8:00 AM	0	314	0	0	0	346	0	0	351	0	155	0	0	0	0	0	1166
8:15 AM	0	219	0	0	0	534	0	0	393	0	107	0	0	0	0	0	1253
8:30 AM	0	242	0	0	0	541	0	0	306	0	129	0	0	0	0	0	1218
8:45 AM	0	270	0	0	0	469	0	0	345	0	124	0	0	0	0	0	1208
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2621	0	0	0	4698	0	0	3074	0	1693	0	0	0	0	0	12086
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	64.49%	0.00%	35.51%	0.00%					
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	1045	0	0	0	1890	0	0	1395	0	515	0	0	0	0	0	4845
PEAK HR FACTOR :	0.000	0.832	0.000	0.000	0.000	0.873	0.000	0.000	0.887	0.000	0.831	0.000	0.000	0.000	0.000	0.000	0.967
	0.832				0.873				0.944								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	4	2	0	0	3	2	0	3	0	2	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	598	0	0	0	455	0	0	404	0	95	0	0	0	0	0	1552
4:15 PM	0	513	0	0	0	552	0	0	468	0	112	0	0	0	0	0	1645
4:30 PM	0	576	0	0	0	498	0	0	398	0	128	0	0	0	0	0	1600
4:45 PM	0	520	0	0	0	585	0	0	449	0	128	0	0	0	0	0	1682
5:00 PM	0	529	0	0	0	558	0	0	405	0	117	0	0	0	0	0	1609
5:15 PM	0	577	0	0	0	555	0	0	356	0	149	0	0	0	0	0	1637
5:30 PM	0	446	0	0	0	423	0	0	463	0	147	0	0	0	0	0	1479
5:45 PM	0	431	0	0	0	502	0	0	487	0	141	0	0	0	0	0	1561
6:00 PM	0	511	0	0	0	447	0	0	409	0	130	0	0	0	0	0	1497
6:15 PM	0	348	0	0	0	443	0	0	409	0	127	0	0	0	0	0	1327
6:30 PM	0	442	0	0	0	322	0	0	335	0	128	0	0	0	0	0	1227
6:45 PM	0	241	0	0	0	325	0	0	349	0	116	0	0	0	0	0	1031
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	5732	0	0	0	5665	0	0	4932	0	1518	0	0	0	0	0	17847
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	76.47%	0.00%	23.53%	0.00%					
PEAK HR :	03:15 PM - 04:15 PM																TOTAL
PEAK HR VOL :	0	2138	0	0	0	2193	0	0	1720	0	485	0	0	0	0	0	6536
PEAK HR FACTOR :	0.000	0.928	0.000	0.000	0.000	0.937	0.000	0.000	0.919	0.000	0.947	0.000	0.000	0.000	0.000	0.000	0.971
	0.928				0.937				0.950								

Location: Zinfandel Dr & US-50 EB Ramps/Gold Center Dr
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-006
Date: 1/11/2022

Streetlight Data - Totals

NS/EW Streets:	Zinfandel Dr					Zinfandel Dr				US-50 EB Ramps/Gold Center Dr				US-50 EB Ramps/Gold Center Dr					
AM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND					
	0	4	0	0	0	0	3	1	0	2	2	2	0	0	0	2	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
6:00 AM	0	209	2	0	0	0	104	0	0	27	174	9	0	4	0	31	0	2	562
6:15 AM	0	313	0	0	0	0	122	0	0	50	103	0	0	7	0	21	0	1	617
6:30 AM	0	302	0	0	0	0	164	0	0	62	109	6	0	7	0	26	0	2	678
6:45 AM	0	283	0	0	0	0	187	0	0	93	148	18	0	2	0	17	0	0	748
7:00 AM	0	350	0	0	0	0	170	0	0	62	155	6	0	0	0	9	0	5	757
7:15 AM	0	489	0	0	0	0	312	0	0	68	167	0	0	2	0	25	0	6	1069
7:30 AM	0	462	0	0	0	0	275	0	0	104	159	0	0	0	0	47	0	4	1051
7:45 AM	0	606	0	0	0	0	359	0	0	147	210	0	0	0	0	48	0	5	1375
8:00 AM	0	602	0	0	0	0	359	0	0	147	214	0	0	0	0	36	0	5	1363
8:15 AM	0	508	1	0	0	0	291	0	0	125	229	2	0	2	0	31	0	6	1195
8:30 AM	0	331	9	0	0	0	314	0	0	125	208	7	0	5	0	29	0	5	1033
8:45 AM	0	317	19	0	0	0	245	0	0	142	213	8	0	2	0	33	0	4	983
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
TOTAL VOLUMES :	0	4772	31	0	0	0	2902	0	0	1152	2089	56	0	31	0	353	0	45	11431
APPROACH %'s :	0.00%	99.35%	0.65%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	34.94%	63.36%	1.70%	0.00%	7.23%	0.00%	82.28%	0.00%	10.49%	
PEAK HR :	07:30 AM - 08:30 AM																		TOTAL
PEAK HR VOL :	0	2178	1	0	0	0	1284	0	0	523	812	2	0	2	0	162	0	20	4984
PEAK HR FACTOR :	0.000	0.899	0.250	0.000	0.000	0.000	0.894	0.000	0.000	0.889	0.886	0.250	0.000	0.250	0.000	0.844	0.000	0.833	0.906
			0.899				0.894				0.926					0.868			

PM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND					
	0	4	0	0	0	0	3	1	0	2	2	2	0	0	0	2	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
4:00 PM	0	727	5	0	0	0	302	0	0	326	53	4	0	0	0	134	0	6	1557
4:15 PM	0	727	18	0	0	0	414	0	0	341	48	9	0	2	0	155	0	9	1723
4:30 PM	0	748	18	0	0	0	417	0	0	434	46	23	0	2	0	189	0	11	1888
4:45 PM	0	723	5	0	0	0	443	0	0	380	46	33	0	6	0	191	0	5	1832
5:00 PM	0	1038	0	0	0	0	428	0	0	372	33	33	0	2	0	222	0	14	2142
5:15 PM	0	585	3	0	0	0	503	0	0	346	31	14	0	0	0	166	0	10	1658
5:30 PM	0	629	2	0	0	0	371	0	0	306	54	6	0	2	0	113	0	13	1496
5:45 PM	0	607	3	0	0	0	413	0	0	254	74	5	0	1	0	95	0	12	1464
6:00 PM	0	532	7	0	0	0	296	0	0	214	64	2	0	0	3	106	0	27	1251
6:15 PM	0	455	8	0	0	0	497	0	0	197	34	0	0	0	0	81	0	20	1292
6:30 PM	0	499	11	0	0	0	406	0	0	219	38	0	0	0	0	60	0	14	1247
6:45 PM	2	527	17	0	0	0	299	0	0	288	56	0	0	6	0	44	0	9	1248
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
TOTAL VOLUMES :	2	7797	97	0	0	0	4789	0	0	3677	577	129	0	21	3	1556	0	150	18798
APPROACH %'s :	0.03%	98.75%	1.23%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	83.89%	13.16%	2.94%	0.00%	1.21%	0.17%	89.94%	0.00%	8.67%	
PEAK HR :	04:15 PM - 05:15 PM																		TOTAL
PEAK HR VOL :	0	2353	15	0	0	0	1583	0	0	1120	223	27	0	3	3	480	0	62	5869
PEAK HR FACTOR :	0.000	0.935	0.536	0.000	0.000	0.000	0.787	0.000	0.000	0.809	0.753	0.482	0.000	0.375	0.250	0.723	0.000	0.574	0.885
			0.938				0.787				0.876					0.778			

Location: Zinfandel Dr & US-50 WB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-007
Date: 1/11/2022

Streetlight Data - Totals

NS/EW Streets:	Zinfandel Dr				Zinfandel Dr				US-50 WB Ramps				US-50 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	2.5	0	1.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	50	0	0	0	32	0	0	0	0	0	0	69	0	10	0	161
6:15 AM	0	56	0	0	0	62	0	0	0	0	0	0	69	0	17	0	204
6:30 AM	0	80	0	0	0	86	0	0	0	0	0	0	76	0	33	0	275
6:45 AM	0	113	0	0	0	68	0	0	0	0	0	0	95	0	36	0	312
7:00 AM	0	123	0	0	0	43	0	0	0	0	0	0	111	0	47	0	324
7:15 AM	0	123	0	0	0	64	0	0	0	0	0	0	239	0	46	0	472
7:30 AM	0	163	0	0	0	85	0	0	0	0	0	0	191	0	35	0	474
7:45 AM	0	322	0	0	0	103	0	0	0	0	0	0	233	0	50	0	708
8:00 AM	0	249	0	0	0	125	0	0	0	0	0	0	200	0	60	0	634
8:15 AM	0	184	0	0	0	140	0	0	0	0	0	0	159	0	52	0	535
8:30 AM	0	150	0	0	0	126	0	0	0	0	0	0	143	0	36	0	455
8:45 AM	0	179	0	0	0	96	0	0	0	0	0	0	132	0	29	0	436
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1792	0	0	0	1030	0	0	0	0	0	0	1717	0	451	0	4990
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					79.20%	0.00%	20.80%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	918	0	0	0	453	0	0	0	0	0	0	783	0	197	0	2351
PEAK HR FACTOR :	0.000	0.713	0.000	0.000	0.000	0.809	0.000	0.000	0.000	0.000	0.000	0.000	0.840	0.000	0.821	0.000	0.830
		0.713				0.809								0.866			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	2.5	0	1.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	367	0	0	0	250	0	0	0	0	0	0	132	0	68	0	817
4:15 PM	0	424	0	0	0	216	0	0	0	0	0	0	102	0	79	0	821
4:30 PM	0	397	0	0	0	247	0	0	0	0	0	0	119	0	89	0	852
4:45 PM	0	417	0	0	0	212	0	0	0	0	0	0	138	0	98	0	865
5:00 PM	0	572	0	0	0	210	0	0	0	0	0	0	137	0	95	0	1014
5:15 PM	0	360	0	0	0	234	0	0	0	0	0	0	124	0	87	0	805
5:30 PM	0	358	0	0	0	245	0	0	0	0	0	0	115	0	88	0	806
5:45 PM	0	353	0	0	0	215	0	0	0	0	0	0	113	0	73	0	754
6:00 PM	0	294	0	0	0	201	0	0	0	0	0	0	124	0	88	0	707
6:15 PM	0	243	0	0	0	305	0	0	0	0	0	0	143	0	75	0	766
6:30 PM	0	312	0	0	0	251	0	0	0	0	0	0	116	0	59	0	738
6:45 PM	0	354	0	0	0	188	0	0	0	0	0	0	96	0	72	0	710
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4451	0	0	0	2774	0	0	0	0	0	0	8680	0	971	0	16876
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					89.94%	0.00%	10.06%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	1365	0	0	0	895	0	0	0	0	0	0	476	0	336	0	3072
PEAK HR FACTOR :	0.000	0.948	0.000	0.000	0.000	0.913	0.000	0.000	0.000	0.000	0.000	0.000	0.960	0.000	0.955	0.000	0.953
		0.948				0.913								0.958			

Appendix H

NCHRP-684 Internal Capture Data Sheets

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Residences at Capital Center	**Organization:**	Kimley-Horn and Associates, Inc.
Project Location:	Rancho Cordova, CA	**Performed By:**	AB
Scenario Description:	Opening Year plus Project	**Date:**	1/10/2022
Analysis Year:		**Checked By:**	SD
Analysis Period:	**AM Street Peak Hour**	**Date:**	5/10/2022

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office		-	1,000 Sq Ft	0	0	0
Retail		-	1,000 Sq Ft	0	0	0
Restaurant		9	1,000 Sq Ft	81	45	36
Cinema/Entertainment		-	Screen(s)	0	0	0
Residential		417	Dwelling Unit(s)	172	41	131
Hotel		-	Room(s)	0	0	0
All Other Land Uses[2]		-	0	0	0	0
				253	86	167

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.00	0%	0%	1.00	0%	0%
Retail	1.00	0%	0%	1.00	0%	0%
Restaurant	1.00	0%	0%	1.00	0%	0%
Cinema/Entertainment	1.00	0%	0%	1.00	0%	0%
Residential	1.00	0%	0%	1.00	0%	0%
Hotel	1.00	0%	0%	1.00	0%	0%
All Other Land Uses[2]	1.00	0%	0%	1.00	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	9	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	253	86	167
Internal Capture Percentage	8%	12%	6%
External Vehicle-Trips[5]	233	76	157
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	20%	3%
Cinema/Entertainment	N/A	N/A
Residential	2%	7%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Residences at Capital Center
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	0	0	1.00	0	0
Restaurant	1.00	45	45	1.00	36	36
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	41	41	1.00	130.71	131
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	11	5		0	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	3	1	26	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	10	0	0	0
Retail	0		23	0	1	0
Restaurant	0	0		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	9	0		0
Hotel	0	0	3	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	0	0	0	0	0
Restaurant	9	36	45	36	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	40	41	40	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	0	0	0	0	0
Restaurant	1	35	36	35	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	9	122	131	122	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Residences at Capital Center	**Organization:**	Kimley-Horn and Associates, Inc.
Project Location:	Rancho Cordova, CA	**Performed By:**	AB
Scenario Description:	Opening Year plus Project	**Date:**	1/10/2022
Analysis Year:		**Checked By:**	SD
Analysis Period:	**PM Street Peak Hour**	**Date:**	5/10/2022

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office		-	1,000 Sq Ft	0	0	0
Retail		-	1,000 Sq Ft	0	0	0
Restaurant		9	1,000 Sq Ft	77	47	30
Cinema/Entertainment		-	Screen(s)	0	0	0
Residential		417	Dwelling Unit(s)	191	118	73
Hotel		-	Room(s)	0	0	0
All Other Land Uses[2]		-	0	0	0	0
				268	165	103

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.00	0%	0%	1.00	0%	0%
Retail	1.00	0%	0%	1.00	0%	0%
Restaurant	1.00	0%	0%	1.00	0%	0%
Cinema/Entertainment	1.00	0%	0%	1.00	0%	0%
Residential	1.00	0%	0%	1.00	0%	0%
Hotel	1.00	0%	0%	1.00	0%	0%
All Other Land Uses[2]	1.00	0%	0%	1.00	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	5	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	7	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	268	165	103
Internal Capture Percentage	9%	7%	12%
External Vehicle-Trips[5]	244	153	91
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	15%	17%
Cinema/Entertainment	N/A	N/A
Residential	4%	10%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Residences at Capital Center
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	0	0	1.00	0	0
Restaurant	1.00	47	47	1.00	30	30
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	118	118	1.00	72.6	73
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	1	12		2	5	2
Cinema/Entertainment	0	0	0		0	0
Residential	3	31	15	0		2
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	1	0	5	0
Retail	0		14	0	54	0
Restaurant	0	0		0	19	0
Cinema/Entertainment	0	0	1		5	0
Residential	0	0	7	0		0
Hotel	0	0	2	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	0	0	0	0	0
Restaurant	7	40	47	40	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	5	113	118	113	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	0	0	0	0	0
Restaurant	5	25	30	25	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	7	66	73	66	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

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SMUD®

Sent Via E-Mail

October 17, 2022

Nick Sosa, Associate Planner
City of Rancho Cordova Planning Division
2729 Prospect Park Drive
Rancho Cordova, CA 95670
nsosa@cityofranchocordova.org

Subject: **The Residences at Capital Center Major Design Review / 2022090063 / MND**

Dear Mr. Sosa:

The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide comments on the Mitigated Negative Declaration (MND) for The Residences at Capital Center Major Design Review (Project, SCH 2022090063). SMUD is the primary energy provider for Sacramento County and the proposed Project area. SMUD's vision is to empower our customers with solutions and options that increase energy efficiency, protect the environment, reduce global warming, and lower the cost to serve our region. As a Responsible Agency, SMUD aims to ensure that the proposed Project limits the potential for significant environmental effects on SMUD facilities, employees, and customers.

It is our desire that the Project will acknowledge any impacts related to the following:

- Overhead and or underground transmission and distribution line easements. Please view the following links on smud.org for more information regarding transmission encroachment:
  - https://www.smud.org/en/Business-Solutions-and-Rebates/Design-and-Construction-Services
  - https://www.smud.org/en/Corporate/Do-Business-with-SMUD/Land-Use/Transmission-Right-of-Way
- Utility line routing
- Electrical load needs/requirements
- Energy Efficiency
- Climate Change
- Cumulative impacts related to the need for increased electrical delivery
- The potential need to relocate and or remove any SMUD infrastructure that may be affected in or around the project area

Please ensure that the information included in this response is conveyed to the Project planners and the appropriate Project proponents.

Environmental leadership is a core value of SMUD and we look forward to collaborating with you on this Project. Again, we appreciate the opportunity to provide input on this MND. If you have any questions regarding this letter, please do not hesitate to contact me at 916.732.7406, or by email at jerry.park@smud.org.

Sincerely,

Jerry Park
Environmental Services Specialist
Sacramento Municipal Utility District
6201 S Street
Sacramento, CA 95817

cc: Entitlements

CALIFORNIA Water Boards

GAVIN NEWSOM
GOVERNOR

YANA GARCIA
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

10 October 2022

Nicholas Sosa
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670
nsosa@cityofranchocordova.org

COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, RESIDENCES AT CAPITAL CENTER MAJOR DESIGN REVIEW PROJECT, SCH#2022090063, SACRAMENTO COUNTY

Pursuant to the State Clearinghouse's 6 September 2022 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the Residences at Capital Center Major Design Review Project, located in Sacramento County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore, our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of

Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at:

https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter Minkel

Peter Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

Nicholas Sosa

From: Joseph J. Hurley <JHurley@airquality.org>
Sent: Tuesday, October 11, 2022 3:34 PM
To: Nicholas Sosa
Subject: Initial Study/Proposed Mitigated Negative Declaration for the Residences at Capital Center

Follow Up Flag: Follow up
Flag Status: Flagged

Good Afternoon Mr. Sosa,

Thank you for providing the Sacramento Metropolitan Air Quality Management District (Sac Metro Air District) with the opportunity to review the project routing for the Initial Study/Proposed Mitigated Negative Declaration for the Residences at Capital Center. The project consists of developing a mixed-use infill residential development with a destination commercial-retail component. The Residences at Capital Center Project would result in 417 units comprised of 240 multifamily units, 177 townhome rental units, and approximately 5,000 square feet of commercial. We offer the comments below on project development to benefit air quality and public health and reduce greenhouse gas emissions.

California Environmental Quality Act Review:

Construction

All projects undergoing CEQA review must implement Sac Metro Air District Basic Construction Emission Control Practices, also available on our website, to use the non-zero particulate matter CEQA thresholds of significance. Additionally, all projects are subject to Sac Metro Air District rules and regulations in effect at the time of construction. Please visit our website to find a list of the most common rules that apply during the construction phase of projects

Design Comments:

Urban Heat Island (UHI) Effects:

According to the Capital Region Transportation Sector Urban Heat Island Mitigation Project (UHI Project), the urban heat island effect already presents a severe challenge to our region, with urbanized areas in Sacramento some 3 to 9 degrees Fahrenheit warmer than their surrounding areas. Higher ambient temperatures increase the formation of ozone, a respiratory system irritant. These higher temperatures can lead to heat stress, heat stroke, and even heat mortality during extreme heat and extended heat waves, especially for the elderly, the young, and those with pre-existing health conditions. The urban heat island results from converting undeveloped land to urbanized land.

For construction, we recommend (1) all new pavements, including sidewalks, roads, bike lanes, pedestrian paths, and parking lots, having an albedo of at least 0.25-0.5, and (2) all new structures utilize certified cool roofs. The California Energy Commission's Title 24, Part 6, suggests an aged solar reflectance of at least 0.63 for low-sloped roofs and at least 0.20 for steep-sloped roofs, with a minimum thermal emittance of 0.75. The Cool Roof Rating Council provides a product directory of roofs.

We recommend that the landscaping plan incorporate new trees to shade new pavements and structures to the extent feasible. The Sacramento Tree Foundation's Shady Eighty guide is a directory of air-quality supportive trees, a more extensive tree list is available on page 153 of the UHI Technical Analysis Report.

We thank the City of Rancho Cordova for the opportunity to comment on this document. You may contact me at jhurley@airquality.org or (279) 207-1130 if you have questions regarding these comments.

Respectfully,

-JJ Hurley

Joseph J. Hurley
Associate Air Quality Planner/Analyst
CEQA and Land Use Section

Nicholas Sosa

From: Lynn Keay <lynn.keay@gmail.com>
Sent: Friday, October 7, 2022 3:13 PM
To: Nicholas Sosa
Subject: Public Comment: The Residences at Capital Center Design Review Project

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Mr. Sosa and Rancho Cordova City Council Members,
In regards to above project under review and draft IS/MND, my comments below summarize my opposition to the proposed zoning use change and residential project.

Currently acreage zoning has GP Designation - Office Mixed Use, (OMU) Zoning - Office Professional Mixed Use (OPMU). The proposed extreme change of land use to 417 high density three level residential apartment and townhome units is NOT even close to meeting conditions considered or intended under the General Plan for Specific Plan Area. The human traffic, road congestion, RCPD and Fire/Emergency support, and consumption of all services for the area are in excess of reasonable use in this small area compared with OMU or OPMU which the entire area was designed to accommodate. The ratio of indoor square footage allocated to OPMU retail compared to total residential square footage is minuscule at less than 5% of the entire project. This is a high density residential proposal unfitting for the surrounding area of pure Office/Commercial and adjacent to the already massive Elliott Single Family Home development underway that will severely increase congestion as International Blvd is widened for direct route into Rio Del Oro with Rancho Cordova Parkway.

Additional traffic congestion of tractor trailer trucking for proposed distribution warehouses being considered would severely impact the community without adding another 417 high density residential units. There is a limit to what a community can absorb and thus a reason for General Plans and Specific Plan Areas. This mitigates ALL of the SPA goals for cohesion and Air Quality.

Would add unreasonable formerly unplanned increased demand for retail, gas, health care, public services, water, transportation, sewer, water treatment, fire, safety, and schools. We don't have enough space in schools for our current population as it is, especially for middle and high school level children.

Another objection is the legacy use intended for the development. OMU/OPMU zoning allows for a variety of future uses of developed structures and can be adapted to fit demand. High density residential development of apartments is much less flexible. Think 15-25+ years from now. We need more businesses and employment here in Rancho Cordova to balance and serve the already aggressively planned residential needs. High density Residential Infill of vacant lots formerly zoned for OMU is not appropriate planning simply to satisfy Out of State developers thirst for investment profits. We already have significant residential multi-family development planned for appropriately zoned areas in the most unaffordable state in the country to live in. Stick with the PLAN for stabilized use and growth, PLEASE! It affects ALL of us in the community.

Sincerely,
Lynn Keay
Homeowner and resident since 1989

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September 30, 2022

Nicholas Sosa, Associate Planner
City of Rancho Cordova Planning Division
2729 Prospect Park Dr.
Rancho Cordova, CA 95670

Subject: **The Residences at Capital Center Design Review Project - Notice of Intent to Adopt a Mitigated Negative Declaration**
APN: **072-0260-051, -054, -056 & 072-0680-065, -068**

Mr. Sosa,

The Sacramento Area Sewer District (SacSewer) has reviewed the subject documents.

Cole Partners Development Company and The Grupe Company are proposing a mixed-use project located on a property zoned Office Professional Mixed Use (OPMU) within the Office Mixed Use (OMU) designation of the General Plan. The project will include an approx. 4,999 SF commercial building area with approx. 3,500 square feet of outdoor area and will have a total of 240 multifamily units with a 7,000 square foot two-story clubhouse with pool and fitness center. The multi-family portion also includes a dog park, barbecue area, and lounge areas. The project also includes 177 townhome units with a separate 7,000 square-foot single story clubhouse with pool and fitness center. Outdoor amenities also include a children's playground, dog park, barbecue area and lounge areas.

SacSewer expects that if the project is subject to currently established policies, ordinances, fees, and to conditions of approval, then mitigation measures within the Mitigated Negative Declaration will adequately address the sewage aspects of the project. SacSewer anticipates a less than significant impact to the sewage facilities due to mitigation.

Attached are minor comments on the Report.

If you have any questions regarding these comments, please call me at (916) 876-6336.

Sincerely,

Yadira Lewis

Yadira Lewis
SacSewer Development Services

Board of Directors
Representing:
County of Sacramento | City of Citrus Heights
City of Elk Grove | City of Folsom
City of Rancho Cordova | City of Sacramento

Christoph Dobson
District Engineer
Rosemary Clark
Director of Operations

Mike Huot
Director of Policy & Planning
Matthew Doyle
Director of Internal Services

Masiku Tepa Banda
Director of Finance
Nicole Coleman
Director of Communications

Once operational, the project site would be developed with approximately 15.2 acres of impervious area (70 percent of the total area), including buildings, asphalt parking lots, and concrete walkways (RSC Engineering, Inc. 2021a: Appendix C). As described in the Preliminary Stormwater Quality Report, the project would be designed to meet the stormwater quality and low impact development (LID) requirements of the Stormwater Quality Design Manual for the Sacramento Region (RSC Engineering, Inc. 2021a). Proposed stormwater features, which include stormwater planter facilities, underground stormwater treatment devices, and disconnected roof drain systems, would reduce erosion potential from operational runoff. Furthermore, landscaping would reduce erosion potential in unpaved areas. With adherence to applicable rules and regulations and implementation of BMPs and LID practices, the project would result in a less-than-significant impact related to erosion and loss of topsoil.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than Significant. Refer to Sections 3.7.2(a)(iii) and (iv) above. The project site is underlain with dredge spoil sediments composed of gravels, cobbles, and boulders (CSS Environmental Services, Inc. 2020a). The potential for on- or off-site landslides, lateral spreading, liquefaction, or collapse is considered low because the topography of the project site and surrounding area is generally flat, the depth to groundwater is greater than 50 feet bgs, and the distance to the nearest active fault is over 40 miles from the project site.

The soils in the former slickens ponds are not considered suitable for support of proposed improvements and engineered fill, due to the risk of excessive settlement associated with the low-density soils. Deep deposits of clay and silt exist beneath proposed building footprints could result in settlement in response to fill and structural loads. Therefore, slickens materials will require complete removal and recompaction. However, these soils would be suitable for use in engineered construction, if they are excavated, mixed with on-site gravels and cobbles, moisture conditioned and properly compacted. The project would include over excavation of soils within the building pads and placement of engineered fill to improve the uniformity of support and bearing capacity of the native soils, and to reduce the risk of differential settlement. The specific requirements will be developed in a design-level geotechnical investigation (MPE 2020).

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

Less than Significant. Expansive soils are typically associated with fine-grained clayey soils that have the potential to shrink and swell with repeated cycles of wetting and drying. Laboratory testing of the on-site clays indicates they possess a medium expansion potential when tested in accordance with the ASTM D4829 test method. These soils experience volume changes with varying soil moisture contents and are capable of exerting moderate expansion pressures upon foundations and concrete slabs-on-grade, including sidewalks (MPE 2020).

The Residences Project would be subject to California Building Code standards, which include common engineering practices requiring special design and construction methods that reduce or eliminate potential expansive soil related impacts. Therefore, substantial risks to life or property would not occur.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

SASD is now SacSewer. Change all.

No Impact. The Sacramento Area Sewer District (SASD) provides sewer services within the City and operates utility lines within the roadways adjacent to the project site. In addition, the project site is within the service area of Sacramento Regional County Sanitation District (Regional San), which provides regional wastewater conveyance and treatment services. Wastewater within the Regional San service area is treated at the Sacramento Regional Wastewater Treatment Plant (SRWTP) in the City of Elk Grove. The Residences Project would be served by SASD and Regional San and does not propose the use of septic tanks or alternative waste water disposal systems. Therefore,

water portfolio and implementation of the water shortage contingency plan provide GSWC Cordova with stable and reliable water service to meet its current and 2045 projected water demands in normal, single dry, and five consecutive dry year scenarios.

In 2020, the agency's public water supply served a total of 14,759 connections (GSWC 2021: 1-2) for a population of approximately 44,050 people. In 2020, the water demand for the service area was 14,206 acre-feet (AF) (GSWC 2021: 4-1). In 2025 and 2045, the projected water demand for normal (non-drought conditions) is estimated to be 13,605 acre-feet per year (AFY) and 15,032 AFY, respectively (GSWC 2021: 4-6), for population estimates of 45,162, and 49,900. The UWMP determined that the agency would have sufficient water supply to meet projected demand for the service area through 2045, even in the event of multiple dry year conditions (GSWC 2021: 5-1).

WASTEWATER

Wastewater conveyance is provided by SASD, which manages and maintains the region's sewer systems. Wastewater collected in SASD's system is processed at the SRWTP, which is managed by Regional San located at 8521 Laguna Station Road in the City of Elk Grove. The network of pipelines comprising the sewer system collection pipelines are categorized based on their size, function, and flow capacity.

10

- Collectors generally receive flow directly from individual homes and businesses, are generally 6-8 inches in diameter, designed to carry less than 1 million of gallons per day (mgd) wastewater flow.
- Trunk sewers collect flows from collectors and are generally 12-36 inches in diameter, have a flow capacity between one and 10 mgd.
- Interceptors are between 36 and 144 inches in diameter and have a flow capacity of 10 mgd or greater.

DRY UTILITIES

The Sacramento Municipal Utility District would provide electricity and Pacific Gas and Electric would provide natural gas. AT&T would provide telecommunications services.

SOLID WASTE

Republic Services, Inc. would provide solid waste collection services to the project site, and Waste Management (WM) manages local recovery stations and landfills. The Kiefer Road Landfill is classified as a major landfill, which is defined as a facility that receives more than 50,000 tons of solid waste per year and is the only facility in Sacramento County that accepts solid waste from the public (City of Rancho Cordova 2021b: 4-180). Kiefer landfill currently has 117 million cubic yard (58 million tons) total capacity and is divided into 11 modules (City of Rancho Cordova 2021b: 4-180. To date, Kiefer has placed approximately 40 million cubic yards of waste into Modules 1-3, leaving 77 million cubic yards (38 million tons) of available capacity. The maximum tons per day (tpd) allowed at the Kiefer Road Landfill is 10,815 tpd, with an average intake of 6,362 tpd. Currently, the Kiefer Road Landfill is operating below permitted capacity and would have capacity for the next 30 to 40 years based on current disposal rates (City of Rancho Cordova 2021b). Chapters 6.20, "Solid Waste Requirements," 6.21, "Business and Multifamily Recycling and Organics Recycling" describe City requirements related to the provision of solid waste disposal services including collection and transport, waste diversion, and container requirements for commercial, single family residential, and multifamily residential waste generators. The California Integrated Waste Management Act of 1989 (AB 939) required a diversion of a minimum of 50 percent of discarded materials away from disposal in landfills.

Cordova
Recreation & Park District

October 10, 2022

Nicholas Sosa
City of Rancho Cordova Planning Department
2729 Prospect Park Dr.
Rancho Cordova, CA 95670
(916) 851-8759

Regarding:	**The Residences at Capital Center** **Initial Study and Mitigated Negative Declaration**
Review Document:	**Initial Study prepared by Ascent Environmental, Inc. dated August 2022**
Public Review Period:	**September 9 to October 10**

Reviewed by: Cordova Recreation and Park District
Laura Taylor, CRPD Park Planning and Development Manager
Lisbet Gullone, CRPD Contract Planner

Cordova Recreation and Park District (CRPD) is responding to the City of Rancho Cordova's Notice of Intent to adopt a Mitigated Negative Declaration for the Residences at Capital Center. The District has previously made comments and prepared Conditions of Approval regarding the application for Major Design Review. As a part of the latest comment letter (dated July 19, 2022), CRPD also provided a copy of the updated Conditions of Approval (prepared April 8, 2022).

BACKGROUND

The Residences at Capital Center is an infill project with 177 townhomes and 240 multi-family units. As stated in CRPD's initial development review letters, this project in a new development area would require the dedication of five acres of Quimby park land per 1,000 residents. The impact of the new residents generated by this project were never accounted for in original development approvals for this parcel because the parcel was originally intended for commercial development. Because all the units in this project will be rented and the existing parcels will not be subdivided into individual lots CRPD has agreed with the City of Rancho Cordova's interpretation that the project falls under City of Rancho Cordova (City) Municipal Code Chapter 22.170.020 which is intended to mitigate the impacts to the local park system for "in-fill" development. As a result, park fees will be applied per City Municipal Code, Chapter 22.170.020.

3.1 ENVIRONMENTAL CHECKLIST

CRPD has not been included with the list of '*Other public agencies whose approval is required*' (No. 10 on the Environmental Checklist). However, the developer is required to meet the following of CRPD's requirements:

- Submit an application form together with an application fee (completed in January 2022).
- Pay park fees to offset the impact of this in-fill development on the local parks and recreation system (owned and maintained by Cordova Recreation and Park District) per City of Rancho Cordova Municipal Code 22.170.010 subsection d and 22.170.
- Mitigate the on-going maintenance impact of the new residents on existing park and recreation system by annexing the project site to the Villages of Zinfandel Community Facilities District (CFD) No. 01-01.
- Obtain a certificate of compliance that all fees have been paid to CRPD related to the review, approval and implementation of this project.

CRPD Comment:

Add Cordova Recreation and Park District to the list on page 22 of '*public agencies whose approval is required*' (No. 10 on the Environmental Checklist.)

3.15 PUBLIC SERVICES

Section 3-15.2 discusses Parks. Table 3.15-2 lists all existing parks within a mile of the proposed development. All of the parks listed are under the ownership and management of CRPD and are within CRPD's Villages of Zinfandel CFD 01-01. The report does not list in this section (or in Transportation Section 3-17) the CRPD trail system within the adjacent Villages of Zinfandel development. The trail corridors in Villages of Zinfandel (VOZ) will be utilized and impacted by new residents of this development. The long-term impact to both local parks and trails is mitigated by the development's annexation into CRPD's Villages of Zinfandel CFD 01-01. Make the following clarifications and corrections listed below.

CRPD Comments:

On page 88, second paragraph under "Parks?" the report does not distinguish between open space owned and managed by the City and Quimby parkland owned and maintained by CRPD. Clarify in the report.

On page 88, second paragraph, revise the second sentence to clarify that CRPD, in coordination with the City, reviews new residential development to ensure compliance with CRPD's Quimby Parkland standards.

On page 88, second paragraph, fourth sentence is incorrect. The sentence currently states, "*The recreational amenities are intended to meet the City requirements for open space ~~and parkland~~.*" Delete "and parkland".

On page 89 second sentence states, *"Furthermore, the City may require payment of development fees to fund CRPD park improvements to offset the increased use of parks from new residential development"*. This statement is not an accurate reflection of CRPD's previous written review comments for this development and CRPD's Conditions of Approval that were submitted and approved by the City earlier on this project. In-fill park fees required in City's Code 22.170.010 are intended to offset the impact to existing parks and recreation system by funding improvements to the existing system. The long-term impact of the use by the new development's residents are intended to be offset by participation in CRPD's Villages of Zinfandel CFD 01-01. Revise this sentence to clarify this project will provide two sources of funding, parks fees per Code 22.170.010 and annexation into CRPD Villages of Zinfandel CFD 01-01, to mitigate the impacts of this development.

3.16 RECREATION

The chapter regarding Recreation includes the same language as the segment regarding Public Services. CRPD is the local government agency responsible for provision of recreational services. CRPD comments about jurisdiction in section 3.15 apply to this section.

CRPD Comment

Page 90, Section 3-16.-2, a. fourth sentence, states, "*These recreational amenities are intended to meet the City requirements for open space ~~and parkland~~.*" Delete "and parkland".

Make other clarifications in this section similar to those described for Section 3.15.2 Parks.

In summary, the two funding sources to CRPD described above (in-fill park fees per City Code 22.170.010 and annexation into CRPD VOZ CFD 01-01) are required to offset the impacts of this new residential to CRPD parks and recreation services. If these two funding sources are not implemented, then CRPD cannot agree this project has a "less than significant" impact to the local parks and recreation system.

Thank you for notifying CRPD of the Notice of Intent for this project. Please contact me if you have any questions or comments regarding CRPD's comments.

Respectfully,

Laura L. Taylor, ASLA
Park Planning and Development Manager
Cordova Recreation and Park District

Copy: Patrick Larkin, General Manager for Cordova Recreation and Park District
Bob Thurbon, CRPD Attorney
Elizabeth Sparkman, City Community Development Director

Residences at Capital Center

Response to Comments on the Initial Study/
Proposed Mitigated Negative Declaration

1 INTRODUCTION

The proposed Residences at Capital Center Project (Residences Project) is a mixed-use infill residential development with a destination commercial-retail component. The Residences Project would result in the construction of 417 dwelling units (240 multifamily units and 177 townhome rental units) and approximately 5,000 square feet of commercial development on a 22.9-acre site that is located along International Drive, east of Kilgore Road, and adjacent to the Folsom South Canal. The vacant property is located in the city's Capital Center and surrounded by residential uses, park facilities, and office and industrial uses. The site is located near the Rancho CordoVan Village bus route, which provides access to the Zinfandel Light Rail Station.

The Residences Project site is designated as Office Mixed Use in the City's General Plan Land Use Diagram. As described in the City's General Plan Land Use Element, this designation encourages the integration of commercial and/or residential use in conjunction with office use. The zoning designation for the Residences Project site is Office Professional Mixed-Use (OPMU). The Residences Project is consistent with the existing General Plan land use designation and zoning of the site.

The City prepared an Initial Study (IS) and proposed Mitigated Negative Declaration (MND) for the Residences Project to present decision-makers and the public with information about the environmental consequences of implementing the project. The City released the draft IS and proposed MND for public review and comment between September 9, 2022 and October 10, 2022.

The City received six comment letters regarding the Residences Project during the 30-day review period. This document provides responses to the concerns raised in each of the comments.

2 RESPONSE TO COMMENTS

9/30/2022
YADIRA LEWIS, SACRAMENTO AREA SEWER DISTRICT

The comment expresses concurrence with the conclusion that there would be a less than significant impact to sewage facilities and offers minor text clarifications for the IS/MND. In response to this comment, the document has been revised to replace "SASD" with "SacSewer." In addition, the description of sewer system collection pipeline classification on page 3-81 has been revised to indicate that collectors are generally 6 to 10 inches in diameter.

10/10/2022
PETER MINKEL, CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

The comment provides a summary of Central Valley Regional Water Quality Control Board regulations. This information is consistent with the analyses in Section 3.10, "Hydrology and Water Quality," of the IS. The comment does not offer specific direction or comments regarding development of the Residences Project or comment on the

analysis or conclusions in the IS/MND. These comments are noted. No revisions to the IS/MND have been made in response to this comment.

10/10/2022
LAURA L. TAYLOR, CORDOVA RECREATION AND PARK DISTRICT

The comment indicates that park fees would be applied to the proposed development through Chapter 22.170.020 of the City's Municipal Code and that the project site would be annexed into the Villages at Zinfandel Community Facilities District No. 01-01. The comment recommends several specific text revisions to the IS to more accurately reflect Cordova Park and Recreation District's (CRPD's) conditions for approval of the project.

Specifically, the comment suggests that Cordova Park and Recreation District should be added to the list of public agencies whose approval is required in Section 2.6, "Project Approvals," of the IS. The document has been revised as suggested. See page 2-7 on the Final IS.

The comment also suggests clarification of the discussion of the potential for impacts to parks in Section 3.15, "Public Services," and Section 3.16, "Recreation," so that the text more accurately reflects CRPD's jurisdiction and requirements. These discussions have been revised as suggested. See pages 3-66, 3-68, 3-69, and 3-70 of the Final IS.

10/11/2022
JOSEPH J. HURLEY, SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

The comment provides a summary of the Sacramento Metropolitan Air District's requirement that projects implement Sac Metro Air District Basic Construction Emission Control Practices "to use the non-zero particulate matter CEQA thresholds of significance."

The IS provides an analysis that is consistent with the requirements cited in the comment. As indicated in Section 3.3, "Air Quality:"

> The project intends to implement SMAQMD's best management practices of fugitive dust and exhaust emissions control including, but not limited to, watering the site two times daily, limiting vehicle speeds on unpaved roads to 15 miles per hour, reduce idling to no more than five minutes, etc. With implementation of SMAQMD's best management practices identified in Section 2.5 of Chapter 2, "Project Description," the SMAQMD's peak daily and annual thresholds increase from zero to 80 pounds per day (lb/day) or 14.6 tons per year (tpy) for PM_{10} and 82 lb/day or 15 tpy for $PM_{2.5}$.

The comment also offers design suggestions related to the solar reflectance of hard surfaces including sidewalks and roofs and incorporating trees into the landscape plan. The proposed project includes these features. As described in the IS, Chapter 2, "Project Description," (p.2-4 and p.2-6) all new structures developed in the Residences Project would have cool roofs and the landscape plans include 804 new tree plantings. In addition, at least 25 percent of paved area will have an albedo of no less than 0.25.

10/17/2022
JERRY PARK, SACRAMENTO MUNICIPAL UTILITY DISTRICT

The comments requests that the any conflicts with electrical transmission lines and easements are identified, as well as any impacts related to electrical demand, energy efficiency, and climate change. Refer to Sections 3.6, "Energy," 3.8, "Greenhouse Gas Emissions," and 3.19, "Utilities and Service Systems," in the IS for discussion of these topics. The

project would not conflict with existing electrical facilities. The comment does not provide specific comments on the analysis or conclusions in the IS. The comment is noted for the record.

10/7/2022
LYNN KEAY

The comment identifies the existing General Plan designation and zoning of the project site and indicates that the Residences Project is inconsistent with these designations, which could result in development that exceeds planning assumptions for this land use. This is an incorrect interpretation of the proposal and the allowable uses on the project site. As summarized above, the Residences Project is consistent with the existing land use designation; the OPMU zoning designation allows 18 dwelling units per acre. The comment that high-density residential and commercial mixed use is an "unfitting" land use between "pure Office/Commercial" and an existing development of single-family homes is noted and will be forwarded to the decision-makers for consideration.

The comment specifically indicates that the Residences Project would result in traffic congestion that exceeds roadway capacity as a result of perceived inconsistencies with these existing land use planning documents. As stated above, the project is consistent with the land use a designation. Refer to Appendix F (Transportation Impact Study) of the IS for evaluation of traffic congestion due to the project. As indicated in the Transportation Impact Study, with adjustment to the signal timing of the intersection of Kilgore Road and White Rock Road, all intersections in the vicinity are expected to operate within the acceptable Level of Service (based on consistency with the threshold established in the City of Rancho Cordova's General Plan).

The comment references the potential for increased demand for public services and utilities. These topics are addressed in Section 3.15, "Public Services," and 3.19, "Utilities and Service Systems," of the IS. No impacts associated with the need for new or altered facilities were identified in this analysis. As described in the IS, the City's General Plan provides policies for ensuring adequate services in accordance with projected growth and development. Population growth, including student population, from the Residences Project would be consistent with the type of growth anticipated in the City's General Plan. The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities. The commenter does not offer direct comments on this evaluation and no further response can be provided.

The comment states that approval of the Residences Project would commit the project site to residential uses in the future and suggests that the land use designation and zoning should not be changed. As stated above, the Residence Project is consistent with the established land use designations. The project would not require a General Plan amendment or change in zoning designation. The comment offers speculation about the balance of jobs to housing in the future and suggests that there is not a need for multi-family development, but offers no evidence to support this claim. This comment is noted.

August 2022

INITIAL STUDY/PROPOSED MITIGATED NEGATIVE DECLARATION

The Residences at Capital Center

PREPARED FOR:

Initial Study/Proposed Mitigated Negative Declaration

for the

Residences at Capital Center

Prepared for:

City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Contact: Nick Sosa, Associate Planner

Prepared By:

Ascent Environmental, Inc.
455 Capitol Mall, Suite 300
Sacramento, California 95814
916/444-7301

Contact: Jessica Babcock, Project Manager

August 2022

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AF	acre-feet
AFY	acre-feet per year
AQAP	air quality attainment plans
Basin Plan	Sacramento and San Joaquin River Basins
bgs	below ground surface
CAAQS	California ambient air quality standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
City	City of Rancho Cordova
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO_2	carbon dioxide
CRHR	California Register of Historic Resources
CRPD	Cordova Recreation and Park District
CWD	Carmichael Water District
dB	decibels
dBA	A-weighted decibel
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessments
EV	electric vehicle
EVSE	electric vehicle supply equipment
FCUSD	Folsom Cordova Unified School District
FTA	Federal Transit Administration
GHG	greenhouse gas
GSWC	Golden State Water Company
IS/Proposed MND	Initial Study/Proposed Mitigated Negative Declaration
lb/day	pounds per day
lbs	pounds
L_{eq}	Equivalent Noise Level

LID	low impact development
L_{max}	Maximum Noise Level
LOS	level of service
mgd	million gallons per day
MMRP	mitigation monitoring and reporting program
mph	miles per hour
MRZ	Mineral Resource Zones
MS4	municipal separate storm sewer system
$MTCO_2e$	metric tons of carbon dioxide equivalent
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OPR	Office of Planning and Research
PCB	polychlorinated biphenyls
PM_{10}	respirable particulate matter
$PM_{2.5}$	fine particulate matter
RCPD	Rancho Cordova Police Department
REC	recognized environmental conditions
Regional San	Sacramento Regional County Sanitation District
Residences Project	Residences at Capital Center Project
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SacRT	Sacramento Regional Transit
SASb	South American Subbasin
SASD	Sacramento Area Sewer District
SB	Senate Bill
SCMDP	Sacramento County Multi-Hazard Disaster Plan
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMFD	Sacramento Metropolitan Fire District
SQDM	Stormwater Quality Design Manual
SRWTP	Sacramento Regional Wastewater Treatment Plant
SSHCP	South Sacramento Habitat Conservation Plan

SVAB	Sacramento Valley Air Basin
SWPPP	Storm Water Pollution Prevention Plan
TAC	toxic air contaminants
the Project Applicant	GGC Project Ventures
TIS	Transportation Impact Study
tpd	tons per day
tpy	tons per years
U.S. 50	United States Route
UDA	Urban Development Area
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled
WM	Waste Management

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1 INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This Initial Study/Proposed Mitigated Negative Declaration (IS/Proposed MND) has been prepared for the City of Rancho Cordova (City), as the lead agency, to evaluate potential environmental effects resulting from the Residences at Capital Center Project. Under CEQA, the lead agency is the public agency with primary responsibility over approval of the project. Chapter 2 "Project Description" presents the detailed project information.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). An Initial Study is prepared by a lead agency to determine if a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]), and thus to determine the appropriate environmental document. In accordance with State CEQA Guidelines Section 15070, a "public agency shall prepare…a proposed negative declaration or mitigated negative declaration…when: (a) The Initial Study shows that there is no substantial evidence…that the project may have a significant impact on the environment, or (b) The Initial Study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level." In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR). By contrast, an EIR is required when the project may have a significant environmental impact that cannot clearly be reduced to a less-than-significant effect by adoption of mitigation or by revisions in the project design.

1.2 WHY THIS DOCUMENT?

As described in the environmental checklist (Chapter 3), the project would not result in any unmitigated significant environmental impacts. Therefore, an IS/Proposed MND is the appropriate document for compliance with the requirements of CEQA. This IS/Proposed MND conforms to these requirements and to the content requirements of State CEQA Guidelines Section 15071.

The purpose of this document is to present to decision-makers and the public information about the environmental consequences of implementing the project. This disclosure document is being made available to the public for review and comment. This IS/Proposed MND will be available for a 30-day public review period from September 9, 2022 to October 10, 2022.

Supporting documentation referenced in this document is available for review at:

City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Comments should be addressed to:

Nick Sosa, Associate Planner
City of Rancho Cordova Planning Division
2729 Prospect Park Drive
Rancho Cordova, CA 95670

E-mail comments may be addressed to: nsosa@cityofranchocordova.org

If you have questions regarding the IS/Proposed MND, please call Nick Sosa at: (916) 851-8753. If you wish to send written comments (including via e-mail), they must be postmarked by October 10, 2022.

After comments are received from the public and reviewing agencies, the City of Rancho Cordova may (1) adopt the MND, mitigation monitoring and reporting program (MMRP), and approve the project; (2) undertake additional environmental studies, potentially including preparation of an Environmental Impact Report; or (3) deny the project. If the project is approved, the project proponent may proceed with the project.

1.3 SUMMARY OF FINDINGS

Chapter 3 of this document contains the analysis and discussion of potential environmental impacts of the project. Based on the issues evaluated in that chapter, it was determined that the project would have either no impact or a less-than-significant impact related to most of the issue areas identified in the Environmental Checklist included as Appendix G of the State CEQA Guidelines. These include the following issue areas:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems
- Wildfire

Potentially significant impacts were identified for biological resources, cultural resources, greenhouse gas emissions, and tribal cultural resources; however, mitigation measures included in the IS/Proposed MND would reduce all impacts to a less-than-significant level.

1.4 PROJECT APPROVALS

The project would require the subject to the following actions:

- City of Rancho Cordova City Council approval of a Conditional Use Permit and Major Design Review
- Sacramento Metropolitan Air Quality Management District: Project Approval
- Sacramento Metropolitan Fire District: Plan Review
- South Sacramento Habitat Conservation Plan permit

1.5 DOCUMENT ORGANIZATION

This IS/Proposed MND is organized as follows:

Chapter 1: Introduction. This chapter provides an introduction to the environmental review process. It describes the purpose and organization of this document as well as presents a summary of findings.

Chapter 2: Project Description. This chapter describes the purpose of and need for the proposed project, identifies project objectives, and provides a detailed description of the project.

Chapter 3: Environmental Checklist. This chapter presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist and determines if project actions would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If any impacts were determined to be potentially significant, an EIR would be required. For this project, however, none of the impacts were determined to be significant after implementation of mitigation measures.

Chapter 4: References. This chapter lists the references used in preparation of this IS/Proposed MND.

Chapter 5: List of Preparers. This chapter identifies report preparers.

2 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

GGC Project Ventures (the Project Applicant) has submitted an application to the City of Rancho Cordova (City) (the Lead Agency) for development of the Residences at Capital Center Project (Residences Project). The Residences Project has been designed as a modern mixed-use infill residential development with a destination commercial-retail component. It would result in the construction of 417 dwelling units (240 multifamily units and 177 townhome rental units) and approximately 5,000 square feet of commercial development.

2.2 PROJECT LOCATION AND EXISTING SETTING

The Residences Project would develop housing within the City of Rancho Cordova, in a location that is approximately 1 mile south of U.S. Highway 50, 9 miles east of downtown Sacramento, and 10 miles southwest of Folsom Lake (Figure 2-1). The project site is 22.9 acres located along International Drive, east of Kilgore Road, and adjacent to the Folsom South Canal (Figure 2-2). The project site is a vacant infill property in the city's Capital Center that is surrounded by residential uses, park facilities, and office and industrial uses. Specific uses include the San Juan Soccer Club complex to the north, industrial development including Costco and California Northstate University College of Pharmacy east of the Folsom South Canal, single family development to the south, and medical office buildings to the west. The site is located near the Rancho CordoVan Village bus route, which provides access to the Zinfandel Light Rail Station.

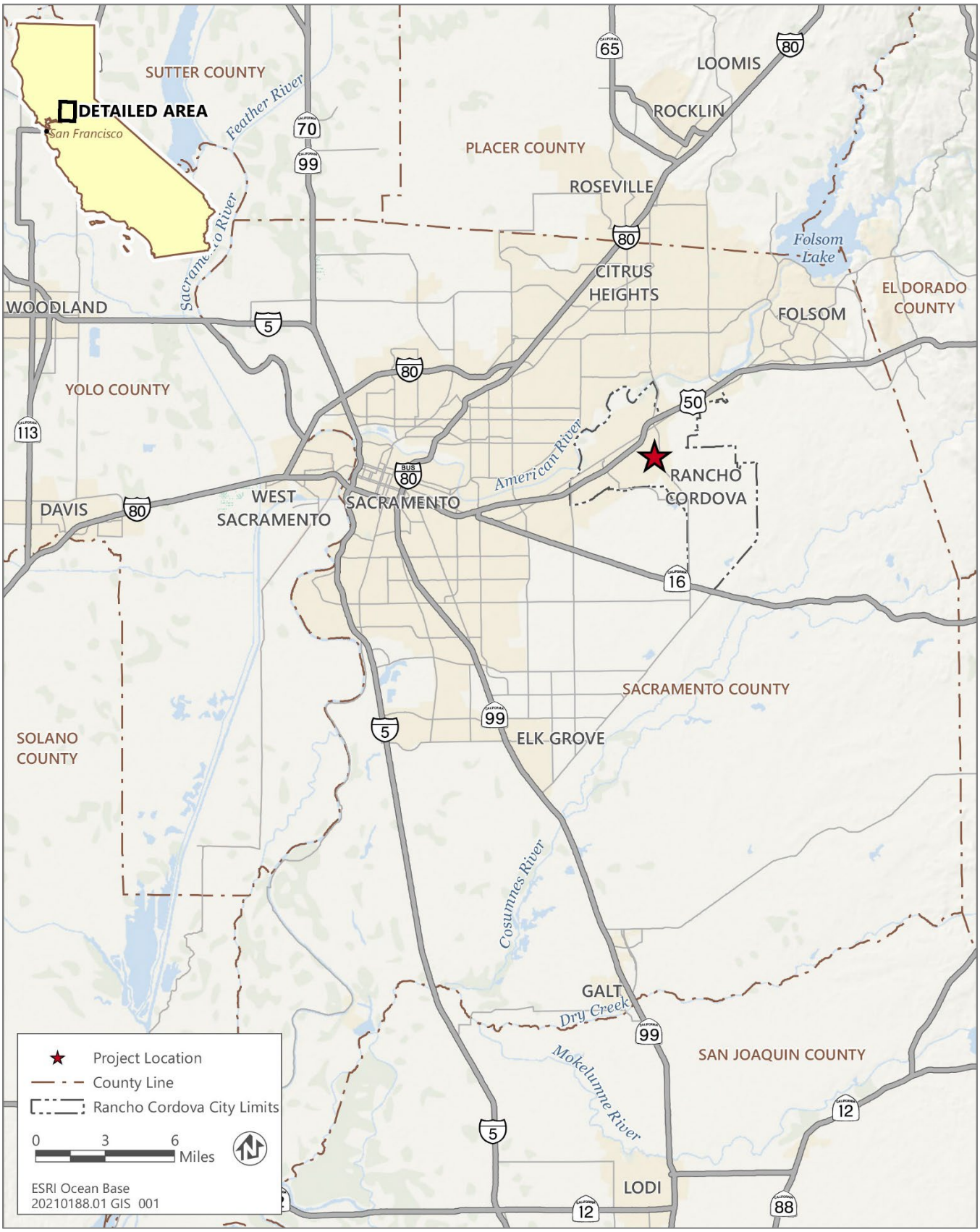
2.2.1 General Plan and Zoning

The Residences Project site is designated as Office Mixed Use in the City's General Plan Land Use Diagram. As described in the City's General Plan Land Use Element, this designation encourages the integration of commercial and/or residential use in conjunction with office use. The zoning designation for the Residences Project site is Office Professional Mixed-Use (OPMU).

2.3 PROJECT OBJECTIVES

Specific project objectives, as stated by the Project Applicant, include the following:

- Develop a high-quality walkable rental community on an infill site at Capital Center.
- Design a community that is complementary in look and feel to the existing office park through attractive modern architectural design and landscaping.
- Provide an open-air, community-oriented commercial space proximate to the proposed residential development, existing office park, and soccer facilities.
- Provide diverse rental housing opportunities in an infill location that is proximate to prominent employment and retail nodes that promotes walking and cycling as alternatives to driving, as well as a "live-work-play" environment.
- Take advantage of pedestrian and cycling connectivity opportunities through improved utilization of existing Rancho Cordova infrastructure. Promote increased cycling between the Residences Project and nearby amenities, shopping at Capital Village, office buildings at Capital Center and Prospect Park, and the Folsom South Canal Recreational Trail.



Source: Prepared by Ascent Environmental 2022

Figure 2-1 Regional Location

Source: Prepared by Ascent Environmental 2022

Figure 2-2 Project Site

2.4 RESIDENCES PROJECT FEATURES

As described above, the Residence Project would consist of residential and commercial components. The northern portion of the site, adjacent to the San Juan Soccer Club, would include 177-units consisting of townhomes and the southeast portion of the site would include a 240-unit multi-family development. There would also be commercial and retail uses in the northeast corner of the site. Each of these project features is shown in Figure 2-3 and discussed below.

2.4.1 Residential

The residential component is conceptualized as two separate residential projects acting as one community.

TOWNHOMES

The townhomes portion of the project would be located on approximately 12 acres just south of the San Juan Soccer Club complex on the northern portion of the Residences Project site. It would include 149 three-story townhome units and 28 two-story townhome units. The three-story units would feature large patios, or lanais, while the two-story units would include enclosed backyards with wood fences. The townhomes portion of the community would also have an approximate 7,000 square foot single-story clubhouse building with pool and fitness center. Outdoor amenity areas would include a pool/spa, children's playground, dog park, and barbeque and lounge areas.

MULTI-FAMILY

The multi-family portion of the community would be located on approximately 9 acres immediately east of the existing commercial building at the northeast corner of Kilgore Road and International Drive. This site would include an approximately 7,000 square foot, two-story clubhouse building with pool and fitness center. Outdoor amenity areas would include a dog park, barbeque, and lounge areas. The clubhouse would feature a large deck area that runs contiguous to a pool and a large community lawn area for residents to congregate and socialize. There would be nine, three-story, garden style walk- up apartment buildings.

2.4.2 Commercial-Retail

The commercial-retail component of the project would be situated on Kilgore Road, adjacent to the townhomes and south of the San Juan Soccer Club complex. It would be located on approximately 1 acre site on the northwest corner of the Residences Project site and would be accessible by motor vehicles via the shared access drive with the San Juan Soccer Club. The proposed commercial development would have approximately 5,000 square feet of building area with approximately 3,500 square feet of outdoor area. The planned open space is designed to buffer the townhomes' clubhouse parking lot from the commercial development; it is envisioned to be a community oriented open-air food and beer garden.

2.4.3 Open Space and Trails

A green space is planned at the center of the project, and wide pedestrian pathways and paseos would wind throughout the project site. At the south side of the Residences Project site, access to the city's pedestrian sidewalk system would connect to the existing Folsom South Canal bike path to the east (providing bicyclists access to the American River Bike Trail and Lake Natoma to the north, and terminating at Cosumnes River to the south). A proposed pedestrian crosswalk on Kilgore Road would provide access to a city-contemplated pathway that would lead to Capital Village in the future. The project also includes 804 new tree plantings.

Source: Prepared by BSB Design 2021

Figure 2-3 Site Plan

2.4.4 Architecture and Design

The proposed building design is modern-contemporary. The structures would be white stucco, which is intended to result in a modern look. Dark metal accents and wood tiling would complement the surrounding landscape. The exterior elevation of the apartments would be approximately 37 feet. The town homes would be between approximately 20 and 30 feet tall. The clubhouse for the apartments would be between these two elevations. The buildings would use varied massing to add visual interest to the large structures. See Appendix A for detailed site design.

BUILDING ENERGY

All project buildings would participate in Sacramento Municipal Utility District's SolarShare program and would include cool roofs. The residential units would be all electric, but gas hook-ups are proposed for the restaurant, heating the pool and spa, two fire pits, and the clubhouse kitchen. All non-residential buildings will be designed with electrical capacity sufficient to support future electrification. At least 25 percent of paved area will have an albedo of no less than 0.25.

2.4.5 Access and Parking

Primary vehicle access to the Residences Project would be from three points off of Kilgore Road (see Figure 2-3). The commercial portion of the Residences Project would be accessed via the existing drive to the San Juan Soccer Club. The entrance to the townhomes would be through a grand promenade entrance south of the commercial area. Access to the multi-family project would be via Crawford Drive, an existing, tree-lined private road located just north of the existing commercial building on the northeast corner of Kilgore Road and International Drive. Emergency vehicle access would be provided to International Drive just east of the existing commercial building.

At least 218 of the parking spaces would be electric vehicle ready stalls (23 percent of total) and at least 12 electric vehicle chargers would be installed. In addition, the project would exceed CalGreen bike parking standards for short- and long-term bike parking/storage.

2.5 RESIDENCES PROJECT CONSTRUCTION

Construction is estimated to occur over 3 years, beginning in August of 2022. The entire site would be graded, with a maximum of 3 acres graded in a single say and approximately 1,500 cubic yards of daily cut and fill. All construction activities would occur between the daytime hours of 7:00 a.m.– 6:00 p.m., Monday through Saturday, and 9:00 a.m.–6:00 p.m. on Sunday.

Construction practices would adhere to established regulations and permit requirements. In addition, the following specification would be required to reduce emissions following Sacramento Metropolitan Air Quality Management District guidelines:

- All exposed surfaces would be watered twice daily.
- Trucks transporting soil, sand, or other loose material on the site would cover or maintain at least 2 feet of free board space. Any haul trucks that would be traveling along freeways or major roadways would be covered.
- Wet power vacuum street sweepers would be used to remove any visible trackout mud or dirt onto adjacent public roads at least once a day.
- Vehicle speeds on unpaved roads would be limited to 15 miles per hour.
- All roadways, driveways, sidewalks, parking lots to be paved would be completed as soon as possible. In addition, building pads would be laid as soon as possible after grading unless seeding or soil binders are used.

- All construction equipment would be maintained in proper working condition according to manufacturer's specifications. The equipment would be checked by a certified mechanic and determine to be running in proper condition before it is operated.

2.6 PROJECT APPROVALS

The project would require the following approvals:

- City of Rancho Cordova City Council approval of a Conditional Use Permit and Major Design Review
- Sacramento Metropolitan Air Quality Management District: Project Approval
- Sacramento Metropolitan Fire District: Plan Review
- South Sacramento Habitat Conservation Plan permit

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3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1.	Project Title:	Residences at Capital Center
2.	Lead Agency Name and Address:	City of Rancho Cordova 2729 Prospect Park Drive Rancho Cordova, CA 95670
3.	Contact Person and Phone Number:	Nick Sosa, Associate Planner (916) 851-8750
4.	Project Location:	East of Kilgore Road, west of the Folsom South Canal and Sunrise Boulevard, and north of International Drive (assessor parcel numbers (APNs) 072-0260-051, -054, -056; 072-0680-065, -068)
5.	Project Sponsor's Name and Address:	GGC Project Ventures LLC 2484 Natomas Park Drive, #101 Sacramento, CA 95833
6.	General Plan Designation:	Office Mixed Use (OMU)
7.	Zoning:	Office Professional Mixed-Use (OPMU)

8. Description of Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

   GGC Project Ventures LLC (project applicant) is proposing the development of a mixed-use infill residential development with a destination commercial-retail component on 22.9 acres. The Residences Project would result in a total of 417 units comprised of 240 multifamily units, 177 townhome rental units, and approximately 5,000 square feet of commercial. Refer to Chapter 2, "Project Description," for a complete project description.

9. Surrounding Land Uses and Setting: (Briefly describe the project's surroundings)

   The project site is surrounded by residential uses, park facilities, and office and industrial uses. Specific uses include the San Juan Soccer Club complex to the north; industrial development, including Costco and automotive and laboratory uses east of the Folsom South Canal; single family development to the south; and medical office buildings to the west.

10. Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement)

    - Sacramento Metropolitan Air Quality Management District: Project Approval
    - Sacramento Metropolitan Fire District: Plan Review

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?
Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

    Yes; consultation was requested on February 15, 2022 and completed April 8, 2022.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Where checked below, the topic with a potentially significant impact will be addressed in an environmental impact report.

☐ Aesthetics	☐ Agriculture and Forest Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology / Soils	☐ Greenhouse Gas Emissions	☐ Hazards / Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance
	☐ None	☒ None with Mitigation Incorporated

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project could not have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☒ I find that although the proposed project COULD have a significant effect on the environment, there WILL NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature Date

Printed Name Title

Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less-than-Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics.				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Environmental Setting

The project site is a vacant property with non-native grasses and ruderal vegetation. The project site has been previously disturbed from past management activities, including grading, dredging, and vegetation trimming/removal. The topography of the project site is relatively flat and views from the project site are limited to immediately adjacent properties. Single- and multi-story buildings (less than three stories) on adjacent commercial, residential, and industrial properties and associated ornamental landscaping (e.g., shrubs and mature trees) are visible from the project site. In addition, recreational fields, roadways and bike paths, and the Folsom South Canal are visible from the project site.

The City of Rancho Cordova General Plan identifies views of major peaks and natural landmarks in the region as important scenic vistas, including views of the American River, Sierra Nevada mountain range, Mt. Diablo, Pine Hill, Flagstaff Hill, Pyramid Peak, Carson Spur, Jackson Butte, Mt. Vaca, and Goat Mountain/Snow Mountain (City of Rancho Cordova 2006a). These scenic vistas are not visible from the project site or from adjacent properties due to the distance to these resources, as well as the intervening development and flat topography.

There are no officially designated or eligible state scenic highways in proximity to the project site. The nearest officially designated state scenic highway is a segment of State Route 160 that travels along the Sacramento River, located approximately 15 miles southwest of the project site (Caltrans 2019). The project site is not within the viewshed of State Route 160, based on the distance, intervening development, and flat topography.

The project site is currently vacant, with no existing onsite sources of light or glare. Light sources in the vicinity of the project site are typical of an urban environment, and include street lights and lights from motor vehicles traveling on adjacent roadways, including Kilgore Road, International Drive, and White Rock Road. Other light sources include interior and exterior building lighting and parking lot lighting from adjacent commercial, industrial, and residential

land uses. Existing sources of glare in the vicinity of the project site are minimal and include light reflected from building windows and vehicles.

3.1.2 Discussion

a) Have a substantial adverse effect on a scenic vista?

No Impact. As discussed in Section 3.1.1, scenic vistas are not visible from the project site or from adjacent properties due to the distance to scenic resources, as well as the intervening development and flat topography. Furthermore, the Residences Project would introduce new structures that would be of similar height to the single- and multi-story buildings situated on adjacent properties. Views of the project site would be consistent with views of other development in the project vicinity. Therefore, the Residences Project would not have a substantial adverse effect on a scenic vista.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. As discussed in Section 3.1.1, the project site is not within the viewshed of an officially designated state scenic highway. The project site is vacant and does not include any scenic resources. Therefore, the Residences Project would not substantially damage scenic resources, such as trees, rock outcroppings, and historic buildings within a state scenic highway.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant. The Residences Project site is located in an urbanized area and is within the Office Professional Mixed-Use (OPMU) Zoning District. According to Chapter 23.313 of the Rancho Cordova Municipal Code, this district is intended for the development of larger office buildings and business parks; however, commercial service and residential uses may be integrated into office buildings or as freestanding buildings. The Residences Project would consist of a mixed-use infill residential development with a destination commercial-retail component. The proposed multifamily units, townhome rental units, and commercial space would be an allowed use of the OPMU district.

The Residences Project would be designed in accordance with the City's Design Guidelines, which ensures that the visual character and quality of new development is compatible with surrounding communities. The City's Design Guidelines include architectural recommendations for building massing, scale, form, and style. Specifically, the design guidelines provide that projects with a large building volume should be broken into smaller components and multi-story buildings should incorporate changes in vertical mass to add interest. The guidelines also require an appropriate transition between new and existing adjacent buildings. In addition, the City's Design Guidelines include recommendations for site design, including circulation, building placement and orientation, public spaces, pedestrian amenities, and parking areas (City of Rancho Cordova 2005).

The architectural style of the Residences Project would consist of a modern-contemporary design that is intended to complement the existing office park designation and surroundings (See Appendix A). The proposed structures would meet the height and density requirements of the OPMU district. As required in the City's Design Guidelines, the project is broken into smaller pieces and has been designed to incorporate massing principles. The site layout also places the shorter townhomes and community buildings adjacent to the San Juan Soccer Club and the taller apartments near the existing commercial uses along International Drive. The site plan includes walking paths that would provide pedestrian connectivity throughout the site and to adjacent land uses. The landscape plan includes trees throughout the site, which would provide shade, privacy screening, and visual accents. The landscaping would meet the requirements of Chapter 23.716 of the Rancho Cordova Municipal Code, which includes landscaping standards to enhance the appearance of developments.

Based on the above discussion, the Residences Project would not conflict with the zoning or other regulations in the City's Municipal Code governing scenic quality of the project site.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than Significant. As discussed in Section 3.1.1, the project site is currently vacant, with no existing onsite sources of light or glare. Light sources in the vicinity of the project site are typical of an urban environment, including lighting from adjacent roadways and commercial, industrial, and residential land uses. Existing sources of glare in the vicinity of the project site are minimal and include light reflected from building windows and vehicles.

The Residences Project would introduce new lighting associated with buildings, walkways, and parking lots/structures. These new light sources would be consistent with existing light sources in the project vicinity and typical of the existing urbanized environment. The project design would be consistent with the City of Rancho Cordova Zoning Code lighting standards. Specifically, the project design would comply with Title 1 (General Provisions) of the Zoning Code, which requires that illumination is shielded and not directed onto adjacent properties. In addition, the project design would be consistent with Title III (Use Regulations and Development Standards) of the Zoning Code, which requires that lighting be directed away from residential areas to maintain the privacy and well-being of residents and away from public streets to reduce glare that could interfere with motorists. A photometric plan has been completed that demonstrates the extent of illumination and compliance with the City's standards.

Additionally, the Residences Project would not include surfaces with potential to cause substantial new glare. The project design would be consistent with other nearby development and with the City's Design Guidelines (City of Rancho Cordova 2005).

Based on the discussion above, the Residences Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest Resources.				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Environmental Setting

According to the California Department of Conservation Farmland Mapping and Monitoring Program, the project site is classified as Urban and Built Up Land (CDOC 2016). The project site is currently vacant and zoned OPMU.

3.2.2 Discussion

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. As discussed in Section 3.2.1, there are no lands designated as Important Farmland and there are no agricultural uses within the project site. Therefore, the project would not convert Important Farmland to non-agricultural use.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact. As discussed in Section 3.2.1, the project site is zoned OPMU. The project site is vacant and not enrolled in Williamson Act contracts. Therefore, the project would not conflict with existing zoning for agricultural use or a Williamson Act contract.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. As discussed in Section 3.2.1, the project site is zoned OPMU. The project site is vacant and does not contain forest land or timberland. Therefore, the project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As discussed in Section 3.2.1, the project site is vacant and does not contain forest land. Therefore, the project would not result in the loss of forest land or conversion of forest land to non-forest use.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. As discussed in Section 3.2.1, the project site is vacant and located within an urban, built-up area. Therefore, the project would not result in conversion of Important Farmland to non-agricultural use or conversion of forest land to non-forest use.

3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?	☒ Yes		☐ No	
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Environmental Setting

The project is located in the Sacramento Valley Air Basin (SVAB), which includes the counties of Butte, Colusa, Glenn, Placer, Sacramento, Shasta, Solano, Sutter, Tehama, Yolo, and Yuba. Ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) are the criteria air pollutants of primary concern in this analysis because of their nonattainment status with respect to the applicable national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS) in the SVAB.

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the primary agency responsible for planning to meet NAAQS and CAAQS in Sacramento County, where the project is located. SMAQMD works with other local air districts in the Sacramento region to maintain the region's portion of the State Implementation Plan (SIP) for ozone. The SIP is a compilation of plans and regulations that govern how the region and State will comply with the Clean Air Act requirements to attain and maintain the NAAQS for ozone. The Sacramento region has been designated as a "moderate" 2015 8-hour ozone nonattainment area with an extended attainment deadline of June 15, 2019 (EPA 2019). The 2018 Sacramento Regional 2008 8-Hour Ozone Attainment and Further Reasonable Progress Plan was approved by the California Air Resources Board (CARB) on November 16, 2017. The previous 2013 Update to the 8-Hour Ozone Attainment and Reasonable Further Progress Plan was approved and promulgated by the U.S. Environmental Protection Agency (EPA) for the 1997 8-Hour Ozone Standard. The EPA has not released a notice of approval and promulgation of the 2017 SIP (CARB 2017a).

SMAQMD has developed a set of guidelines for use by lead agencies when preparing environmental documents. The guidelines contain thresholds of significance for criteria pollutants and toxic air contaminants (TACs), and also make recommendations for conducting air quality analyses. As the resource agency related to air quality, lead agencies that do not have adopted CEQA thresholds, rely on guidance and established thresholds from the air districts.

All projects are subject to adopted SMAQMD rules and regulations in effect at the time of construction. Specific rules applicable to the construction of the proposed Project may include but are not limited to the following:

- Rule 201: General Permit Requirements. Any project that includes the use of equipment capable of releasing emissions to the atmosphere may be required to obtain permit(s) from SMAQMD before equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact SMAQMD early to determine whether a permit is required, and to begin the permit application process. Portable construction equipment (e.g., generators, compressors, pile drivers, lighting equipment) with an internal combustion engine greater than 50 horsepower must have a SMAQMD permit or CARB portable equipment registration.
- Rule 202: New Source Review. The purpose of this rule is to provide for the issuance of authorities to construct and permits to operate at new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.
- Rule 207: Federal Operating Permit. The purpose this rule is to establish an operating permitting system consistent with the requirements of Title V of the United States Code and pursuant to 40 FR Part 70. Stationary sources subject to the requirements of this rule are also required to comply with any other applicable federal, state, or SMAQMD orders, rules and regulations, including requirements pertaining to prevention of significant deterioration pursuant to Rule 203, requirements to obtain an authority to construct pursuant to Rule 201, or applicable requirements under SMAQMD's new source review rule in the SIP.
- Rule 402: Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause or have natural tendency to cause injury or damage to business or property.
- Rule 403: Fugitive Dust. The developer or contractor is required to control dust emissions from earthmoving activities or any other construction activity to prevent airborne dust from leaving the project site. Fugitive dust controls include the following:
  - Water all exposed surfaces two times daily.
  - Cover or maintain at least two feet of free board on haul trucks transporting soil, sand, or other loose material on the site.
  - Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day.
  - Limit vehicle speeds on unpaved roads to 15 miles per hour.
  - All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
  - Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes.
  - Maintain all construction equipment in proper working condition according to manufacturer's specifications.
- Rule 442: Architectural Coatings. The purpose of this rule is to limit the emissions of volatile organic compounds from the use of architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within Sacramento County.
- Rule 902: Asbestos. The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of material containing asbestos.

HEALTH EFFECTS

SMAQMD has also issued *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District, Sacramento, California* (SMAQMD 2020a), which contains guidance on how to address the California Supreme Court decision in Sierra Club v. County of Fresno, 6 Cal.5th 502 (2018)—a court decision often referred to as the Friant Ranch decision. In that decision, the California Supreme Court held that an EIR should "relate the expected adverse air quality impacts to likely health consequences or explain in meaningful detail why it is not feasible at the time of drafting to provide such an analysis." SMAQMD's guidance recommends using the Minor Project Health Effects Tool to estimate the level of health effects for an emissions source that results in emissions at or below criteria air pollutant and precursor thresholds of significance. The sole input for the Minor Project Health Effects Tool is the project's geographical location, and the output of the Minor Project Health Effects Tool is based on that location and modeled emissions at 82 pounds per day of oxides of nitrogen (NO_X), reactive organic gases (ROG), or PM, which are the highest thresholds of significance for each of these pollutants in the SMAQMD and neighboring air districts. Therefore, the Minor Project Health Effects Tool is used for projects with emissions at or below air district thresholds of significance.

CRITERIA AIR POLLUTANTS

Concentrations of criteria air pollutants are used to indicate the quality of the ambient air. Emission source types and health effects are summarized in Table 3.3.-1 and Sacramento County's attainment status for the CAAQS and the NAAQS are shown in Table 3.3.-2.

Table 3.3-1 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO_2)	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO_2)	coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO_2 exposure to chronic health impacts
Respirable particulate matter (PM_{10}), Fine particulate matter ($PM_{2.5}$)	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO_2 and ROG	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis
Lead	metal processing	reproductive/ developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases.

[1] "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

[2] "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Sources: EPA 2016.

Attainment Status

As shown in Table 3.3-2, Sacramento County is designated as a nonattainment for ozone with respect to both the NAAQS (8-hour standard) and CAAQS (1-hour Classification and 8-hour standard), nonattainment for PM_{10} with respect to the CAAQS, and nonattainment for $PM_{2.5}$ with respect to the NAAQS.

Table 3.3-2 Attainment Status Designations for Sacramento County

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Ozone	Attainment (1-hour)[1]	Nonattainment (1-hour) Classification-Serious[2]
	Nonattainment (8-hour)[3] Classification=Severe	Nonattainment (8-hour)
	Nonattainment (8-hour)[4] Classification=Severe	Nonattainment (8-hour)
	Nonattainment (8-hour)[5] Classification=Moderate	Nonattainment (8-hour)
Respirable particulate matter (PM_{10})	Attainment (24-hour)	Nonattainment (24-hour)
	Attainment (24-hour)	Nonattainment (Annual)
Fine particulate matter ($PM_{2.5}$)	Nonattainment (24-hour)	(No State Standard for 24-Hour)
	Attainment (Annual)	Attainment (Annual)
Carbon monoxide (CO)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (8-hour)	Attainment (8-hour)
Nitrogen dioxide (NO_2)	Unclassified/Attainment (1-hour)	Attainment (1-hour)
	Unclassified/Attainment (Annual)	Attainment (Annual)
Sulfur dioxide (SO_2)[6]	(Attainment Pending) (1-Hour)	Attainment (1-hour)
	(Attainment Pending) (1-Hour)	Attainment (24-hour)
Lead (Particulate)	Attainment (3-month rolling avg.)	Attainment (30 day average)
Hydrogen Sulfide	No Federal Standard	Unclassified (1-hour)
Sulfates	No Federal Standard	Attainment (24-hour)
Visibly Reducing Particles	No Federal Standard	Unclassified (8-hour)
Vinyl Chloride	No Federal Standard	Unclassified (24-hour)

[1] Air Quality meets federal 1-hour Ozone standard (77 FR 64036). EPA revoked this standard, but some associated requirements still apply. SMAQMD attained the standard in 2009. SMAQMD has requested EPA recognize attainment to fulfill the requirements.

[2] Per Health and Safety Code (HSC) § 40921.5(c), the classification is based on 1989 – 1991 data, and therefore does not change.

[3] 1997 Standard.

[4] 2008 Standard.

[5] 2015 Standard.

[6] 2010 Standard.

Source: EPA 2019 and CARB 2018.

TOXIC AIR CONTAMINANTS

At the local level, air districts may adopt and enforce CARB control measures for TACs. Under SMAQMD Rule 201 ("General Permit Requirements"), Rule 202 ("New Source Review"), and Rule 207 ("Federal Operating Permit"), all sources that possess the potential to emit TACs are required to obtain permits from SMAQMD. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including New Source Review standards and air toxics control measures. SMAQMD limits emissions and public exposure to TACs through a number of programs. SMAQMD prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors. Sensitive receptors are people or facilities that generally house people (e.g., schools, hospitals, residences) that may experience adverse effects from unhealthful concentrations of air pollutants.

ODORS

Although offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable stress among the public and often generating citizen complaints to local governments and SMAQMD. SMAQMD's Rule 402 (Nuisance) regulates odorous emissions.

SENSITIVE RECEPTORS

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants. The closest sensitive receptor to the project area is the existing residences across International Drive, which are approximately 200 feet south of the project area and 850 south of the proposed commercial site.

3.3.2 Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact. SMAQMD has developed air quality attainment plans (AQAPs) (i.e., Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan), which present comprehensive strategies to reduce volatile organic compounds, NO_X, PM_{10}, and $PM_{2.5}$ emissions from stationary, area, mobile, and indirect sources to achieve attainment status of the SIP, CAAQS, and NAAQS. SMAQMD has not prepared a similar plan for particulate matter attainment. The emission inventories used to develop the applicable AQAPs are based primarily on projected population and employment growth and associated vehicle miles traveled (VMT) for the SVAB. This growth is estimated for the region, based in part, on the planned growth identified in regional and local land use plans such as general plans or community plans. Projects whose growth is included in the projections used in the formulation of the AQAPs are considered to be consistent with the AQAPs and would not interfere with its attainment plans.

The project would consist of a mixed-use infill residential development with a destination commercial-retail component. The proposed multifamily units, townhome rental units, and commercial space would be an allowed use of the OPMU district. Because the project would be consistent with existing land use and zoning for the project site, the project would be consistent with SMAQMD's AQAPs. Furthermore, as discussed for item b), the short-term construction and long-term operation of the project would not generate emissions of criteria air pollutants and precursors that would exceed the SMAQMD-established mass emission thresholds, which were developed to determine whether a project's emissions would cumulatively contribute to the nonattainment designations in the SVAB.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than Significant. Sacramento County is currently designated as nonattainment with respect to the NAAQS and CAAQS for ozone, the NAAQS for $PM_{2.5}$, and the CAAQS for PM_{10}. The SMAQMD CEQA Guidelines identifies whether a project would violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation through pounds per day significance thresholds. Project level thresholds were developed to bring the SVAB into attainment for the NAAQS and CAAQS and to be protective of human health. Project-generated construction and operational emissions, in comparison to SMAQMD thresholds, are presented below. Construction activities would result in temporary generation and emissions of criteria air pollutants and precursors. Construction- and operational-related emissions were estimated using the California Emissions Estimator Model (CalEEMod) Version 2020.4.0 computer program (CAPCOA 2021), in accordance with recommendations by SMAQMD. Modeling was based on project-specific information where available and default values in CalEEMod that are based on the project's location and land use type. Construction and operational impacts are discussed separately below.

Construction

Project construction is anticipated to occur over 36-month period. Construction-related activities would result in project-generated emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from construction activities (e.g., site preparation, grading, building construction, paving, and architectural coating), off-road equipment, material delivery, and worker commute trips. The project intends to implement SMAQMD's best management practices of fugitive dust and exhaust emissions control including, but not limited to, watering the site two times daily, limiting vehicle speeds on unpaved roads to 15 miles per hour, reduce idling to no more than five minutes, etc. With implementation of SMAQMD's best management practices identified in Section 2.5 of Chapter 2, "Project Description," the SMAQMD's peak daily and annual thresholds increase from zero to 80 pounds per day (lb/day) or 14.6 tons per year (tpy) for PM_{10} and 82 lb/day or 15 tpy for $PM_{2.5}$. As shown in Table 3.3-3, emissions resulting from construction of the project would not exceed applicable thresholds and construction associated with the project would not contribute substantially to the nonattainment status of the SVAB.

Table 3.3-3 Maximum Daily Emissions of Criteria Air Pollutants and Precursors Emissions Associated with Project Construction (lb/day)

Construction Year	ROG (lb/day) Emissions	NO_X (lb/day) Emissions	PM_{10} (lb/day) Emissions	PM_{10} (tpy) Emissions	$PM_{2.5}$ (lb/day) Emissions	$PM_{2.5}$ (tpy) Emissions
2022	4	39	21	<1	12	<1
2023	3	17	3	<1	1	<1
2024	3	16	3	<1	1	<1
2025	100	15	3	<1	1	<1
SMAQMD Thresholds of Significance	None	85	80[1]	14.6[1]	82[2]	15[2]

Notes: ROG = reactive organic gas; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; lb/day = pounds per day; SMAQMD = Sacramento Air Quality Management District; tpy = tons per year

[1] If all feasible BACT/BMPs are applied, then 82 lb/day and 15 tpy.

[2] If all feasible BACT/BMPs are applied, then 80 lb/day and 14.6 tpy.

Source: Modeling conducted by Ascent Environmental in 2022.

Operation

Long-term emissions sources associated with project operation would include area sources (landscape equipment, consumer products, maintenance activities) and mobile sources (vehicle trips to the project area). The project would comply with SMAQMD's BMPs for PM reduction through implementation of California Energy Efficiency Standards and Green Building Code, compliance with SMAQMD Rules, and CARB anti-idling regulations (for deliveries to the commercial site). These measures have been included for the purpose of this analysis as they would be required through the building permit and inspection process. As shown in Table 3.3-5, operational emissions are well below the SMAQMD maximum daily thresholds for all criteria pollutants and the project would not contribute substantially to the nonattainment status of the SVAB.

Table 3.3-5 Unmitigated Criteria Air Pollutant and Precursor Emissions Associated with Project Operations

Source	ROG (lb/day)	NO_X (lb/day)	PM_{10} (lb/day)	PM_{10} (tpy)	$PM_{2.5}$ (lb/day)	$PM_{2.5}$ (tpy)
Area	11	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	8	6	10	2	3	<1
Total	20	7	10	2	3	1
SMAQMD Thresholds of Significance	65	65	80[1]	14.6[1]	82[2]	15[2]

Notes: ROG = reactive organic gas; NO_X = oxides of nitrogen; CO = carbon monoxide; PM_{10} = respirable particulate matter; lb/day = pounds per day; SMAQMD = Sacramento Metropolitan Air Quality Management District.

[1] If all feasible BACT/BMPs are applied, then 82 lb/day and 15 tpy.

[2] If all feasible BACT/BMPs are applied, then 80 lb/day and 14.6 tpy.

Source: Modeled by Ascent Environmental in 2022.

The Minor Project Health Effects Tool was used to evaluate potential health effects of mass emissions associated with implementation of the project; the outputs reflect the potential increase in premature deaths over the background health incidence rate of each health endpoint in the region. However, The *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District, Sacramento, California* (SMAQMD 2020a) notes that, by default, the model generates conservatively high health effects. As explained in the guidance, the outputs are based on simulation of a full year of exposure at the maximum daily average of increases in air pollutant concentrations. In the Minor Projects Health Effects Tool, emissions are assumed to be at 82 pounds per day of NO_X, ROG, or PM. As described above, the project emissions would, in actuality, be substantially less than SMAQMD's recommended mass thresholds for criteria air pollutants. Therefore, the model output of additional mortality (i.e., additional mortality of 2 persons due to ozone and $PM_{2.5}$ exposure) unequivocally overstates the potential cardiovascular and respiratory health impacts of the project, and it is possible there would be no cardiovascular and respiratory health impacts (i.e., zero cases of additional mortality) attributable to mass emissions of the project (SMAQMD 2020a). The SMAQMD guidance also notes that the model output includes only health effects with sufficient research to provide quantification. Other health effects are linked to emissions of $PM_{2.5}$ and ozone that are not quantified in the Minor Projects Health Effects Tool (SMAQMD 2020a). Other health effects of criteria air pollutants and ozone are discussed in Section 3.3.1, "Environmental Setting," above. The linkage between mass emissions and other health effects are not quantifiable, and the project would not result in sizeable quantifiable health effects if it resulted in health effects at all. Therefore, it is presumed that these other health effects would also not be sizeable or would be zero. There also may be no health effects due to the conservative nature of the modeling.

Summary

The project would not result in a SMAQMD threshold of significance exceedance or substantially contribute to a nonattainment status of the SVAB for construction or operations. Furthermore, health effects are unlikely. Although the modeling predicts some consequences from development of the project, this is likely attributable to the conservative nature of the modeling.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant. Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and the potential for increased and prolonged exposure of individuals to pollutants. The closest sensitive receptor to the project area is the San Juan Soccer Club adjacent to the project site and the existing residences across International Drive, which are approximately 200 feet south of the project area.

The potential cancer risk from inhaling diesel PM outweighs the potential for all other diesel PM–related health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2003). With regard to exposure to diesel PM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher level of health risk for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period. According to the Office of Environmental Health Hazard Assessment, when a health risk assessment is prepared to project the results of exposure of sensitive receptors to selected compounds, exposure of sensitive receptors to TAC emissions should be based on a 70- or 30-year exposure period; however, such assessments should be limited to the duration of activities associated with the proposed project if emissions occur for shorter periods (OEHHA 2015). Construction- and operational-related project-generated health risks are discussed separately below.

Construction

Construction-related activities would result in temporary, intermittent emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment. Construction activities would occur at approximately 200 feet away from the

nearest sensitive receptor. Construction activities would occur this close to a sensitive receptor temporarily during the site preparation and grading construction phases.

The results of emissions modeling show that maximum daily emissions of exhaust $PM_{2.5}$ would not exceed 6 lb/day during construction. Considering the highly dispersive properties of diesel PM, the relatively low mass of diesel PM emissions that would be generated at any single place during project construction, the relatively short period during which diesel PM–emitting construction activities would take place, and the fact that the nearest sensitive receptor (occupied residence) is 200 feet away, construction-related TACs would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million or an exposure to non-carcinogens Hazard Index greater or equal to 1.0.

Operation

Project operations would result in the long-term emissions of diesel PM from the increase in vehicle trips and associated diesel PM emissions. In particular, diesel-powered trucks associated with the proposed commercial land uses could emit diesel PM at the project site. However, the frequency of diesel-powered truck trips to and from the project area would be intermittent, few in quantity, and occur a substantial distance away from receptors (850 feet or more). As a result, operation of the project would not result in a substantial increase in concentrations of diesel PM at or near the project area. Thus, operational TACs would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million or a Hazard Index greater or equal to 1.0.

Summary

Because of the dispersive properties of diesel PM, the relatively low mass diesel PM emissions that would be generated in one place during the construction and operation of proposed land uses, and the relatively short construction period, it is not anticipated that project-related TACs would expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million or a Hazard Index of 1.0 or greater.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant. The project would include the development of an infill multi-family residential and commercial property and would not result in the introduction of any new permanent sources of odors to the area. Because construction-related odors would be intermittent, temporary, and would disperse rapidly with distance from the source, construction-related odors would not result in the frequent exposure of a substantial number of individuals to objectionable odors.

With respect to operation, odor sources of concern include wastewater treatment plants, sanitary landfills, composting facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting operations, rendering plants, and food packaging plants (SMAQMD 2016). Residential and commercial uses are not land uses that typically generate odors. Therefore, the proposed project would not generate objectionable odors affecting a substantial number of people.

3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources.				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

3.4.1 Environmental Setting

The project site is located at an elevation of between 109 and 120 feet above mean sea level in the Sacramento Valley, on the north side of the Great Valley Ecoregion. The United States Department of Agriculture, National Resource Conservation Service Web Soil Survey indicates that the project site is underlain primarily by mining dredge tailings, comprising 100 percent of the soil composition (NRCS 2022) The project site appears to have never been developed but has sustained historical disturbance in the form of mining dredge tailing deposits. Vegetation onsite consists of uplandnon-native annual grasses and forbs associated with fallow and previously disturbed areas such as wild oat (*Avena fatua*), tarplant (*Holocarpha virgata*), soft brome (*Bromus hordeaceus*), yellow star thistle (*Centaurea solstitialis*), and bull thistle (*Cirsium vulgare*). There are no trees within the boundary of the project site.

The project site supports approximately 21.6 acres of annual grassland. The project site's annual grassland provides suitable foraging habitat for burrowing owl, loggerhead shrike, Swainson's hawk, and white-tailed kite. The site may also provide suitable breeding habitat for burrowing owl, although a thorough burrow survey has not been completed. Although the site does not support trees or shrubs, nearby shrubs and trees could provide suitable nesting habitat for loggerhead shrike, Swainson's hawk, and white-tailed kite.

The project site is within the Plan Area of the South Sacramento Habitat Conservation Plan (SSHCP). The SSHCP Plan Area is defined as the area in which all conservation actions will be implemented and where all incidental take will occur and includes portions of unincorporated Sacramento County, Galt, and the southern half of Rancho Cordova. The SSHCP Plan Area is divided into two components: inside and outside the Urban Development Area (UDA). The City of Rancho Cordova began implementing the SSHCP in late 2019. The site is within the UDA mapped in the SSHCP, which is where all proposed urbanization will occur and where a limited amount of habitat preservation focused mainly on the protection of vernal pools and streams will occur. The proposed development (i.e., urban development in the UDA) is a covered activity under the SSHCP. Covered Activities are projects or activities that are allowable under the SSHCP's Incidental Take Permits and thus can use the SSHCP to mitigate for impacts that result from implementation of the Covered Activity.

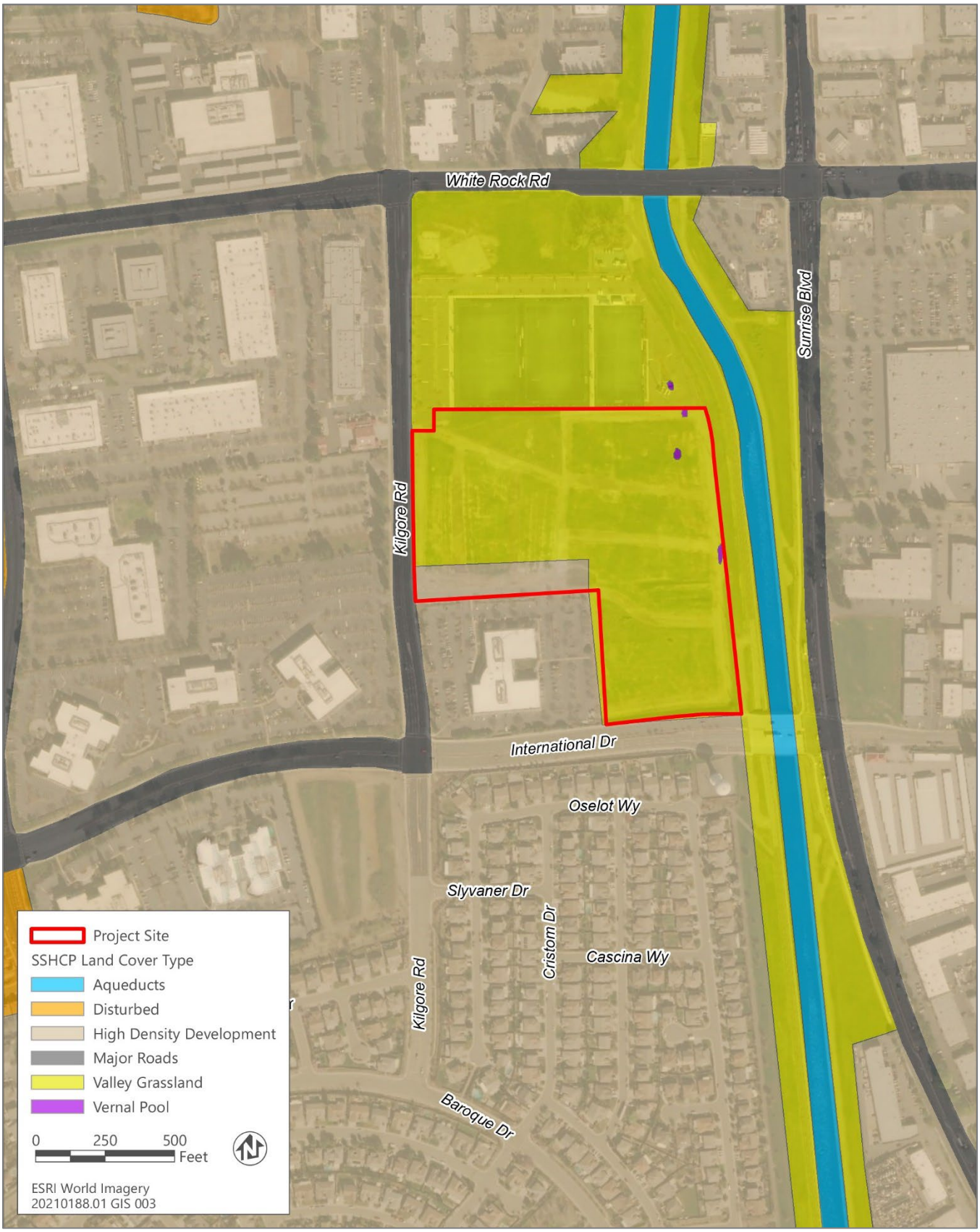
3.4.2 Discussion

Information on sensitive biological resources previously recorded near the study area was collected through a search of the California Natural Diversity Database (CNDDB) and review of the SSHCP (Sacramento County et al. 2018). Databases and background reports reviewed include the following:

- CNDDB record search within the Rio Linda, Citrus Heights, Folsom, Sacramento East, Carmichael, Buffalo Creek, Florin, Elk Grove, and Sloughhouse U.S. Geological Service 7.5-minute quadrangles (CDFW 2022);
- California Native Plant Society, Rare Plant Inventory search of the Rio Linda, Citrus Heights, Folsom, Sacramento East, Carmichael, Buffalo Creek, Florin, Elk Grove, and Sloughhouse U.S. Geological Service 7.5-minute quadrangles (CNPS 2022);
- U.S. Fish and Wildlife Service Information for Planning and Conservation project planning tool (USFWS 2022a);
- U. S. Fish and Wildlife Service. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. (USFWS 2022b); and
- Aquatic Resources Assessment for the Capitol Center Project, City of Rancho Cordova, Sacramento County, California (Appendix B).

The SSHCP includes baseline landcover mapping, which was done at a coarse, regional scale to inform the plan and subsequent permit requests. The baseline landcover mapping for the site shows valley grassland and high density development with three vernal pools on the project site (Figure 3-1). Because conditions may have changed since the SSHCP baseline mapping was completed, site-specific studies are necessary to determine the actual, existing landcovers present on specific sites.

The SSHCP baseline land cover mapping shows that the site may support three small aquatic resources that total about 0.1 acre (Figure 3-1). To determine whether the land cover has changed from the baseline condition and whether vernal pools or other aquatic resources may be present on the project site, an Aquatic Resources Assessment (Appendix B) was performed in accordance with the U.S. Army Corps of Engineers' methodology for delineation of wetlands. The assessment determined that there are no wetlands on the project site, as shown on Figure 3-2. The National Wetland Inventory also does not include any wetlands within the project site. While the existing land cover as shown on Figure 3-2 does not include any aquatic resources, the City will evaluate the updated land cover mapping as part of the SSHCP authorization process and assign mitigation for impacts to land cover, including aquatic resources if present, consistent with the SSHCP's mitigation programs.



Source: Sacramento County et al. 2018.

Figure 3-1 South Sacramento Habitat Conservation Plan Baseline Landcover Types

Source: Madrone Ecological Consulting 2022

Figure 3-2 South Sacramento Habitat Conservation Plan Landcover Types Identified Through Field Survey

Based on the SSHCP species models, 13 species have a likelihood of occurring on the project site. The CNDDB query returned 21 species as occurring within the nine-quad search area. However, of these species only four have a likelihood of occurring based on existing habitat and known nearby occurrences and these are burrowing owl (*Athene cunicularia*), loggerhead shrike (*Lanius ludovicianus*), Swainson's hawk (*Buteo swainsoni*), and white-tailed kite (*Elanus leucurus*). Species for which suitable habitat is absent from the project site or whose known range does not include the project site were determined not to be affected by project implementation. The CNDDB and California Native Plant Society query results indicate that there are 13 special-status plants with potential to occur in the project area. However, all 13 plants are dependent on wetlands or vernal pools. Because there is no suitable habitat in the project area for wetland dependent species, these species are unlikely to occur.

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated. The project site supports annual grassland that provides suitable foraging habitat for burrowing owl and loggerhead shrike, both California species of special concern; Swainson's hawk, which is listed as a threatened species pursuant to the California Endangered Species Act; and white-tailed kite, a California fully protected species. Implementation of the project would result in direct loss of approximately 21.6 acres of annual grassland. Although the project site soils consist mostly of mine tailings, the area still provides suitable foraging habitat for these species. The loss of foraging habitat for these species would result in substantial negative effects to the sustainability of these species and, thus, impacts to special-status birds are potentially significant.

Burrowing Owl

Burrowing owl is a species that has a high potential for occurrence because of suitable foraging and nesting habitat present within the project site and vicinity. The potential presence of burrowing owl cannot be ruled out without protocol-level surveys. Adults, eggs, and juveniles could be killed during site grading and other ground disturbance that destroys occupied burrows or nest sites. Burrowing owls always need burrows to survive and displacing individuals from their burrows can result in indirect impacts such as predation, increased energetic costs, increased stress, and risks associated with having to find and compete for burrows, all of which can lead to take or reduced reproduction. Construction disturbances could also cause pairs nesting nearby to abandon their nests resulting in mortality of chicks and eggs. The loss of occupied burrowing owl habitat or mortality of adults, chicks, or eggs would be a potentially significant impact.

Swainson's Hawk

For determining impacts to and establishing mitigation for nesting Swainson's hawks in Sacramento County, the California Department of Fish and Wildlife (CDFW) recommends implementing the measures set forth in the CDFW Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994). These measures state that no intensive new disturbances, such as heavy equipment operation associated with construction, should be initiated within 0.25 mile of an active Swainson's hawk nest in an urban setting or within 0.5 mile in a rural setting between March 1 and September 15. Trees adjacent to the project site represent potential nesting habitat for Swainson's hawk. Although no Swainson's hawks have been recorded as nesting within the project site, there are 38 records of Swainson's hawks nesting within 10 miles of the project site. Six of these occurrences were recorded within the last five years (CDFW 2022). Although no tree removal would occur as part of the project, project construction could disturb active nests near the construction area, potentially resulting in nest abandonment by the adults and mortality of chicks and eggs. Construction noise can cause abandonment of nests up to 0.5 mile away in rural settings and 0.25 mile away in more urban settings. Development of the site would result in a potentially significant impact to nesting Swainson's hawk.

White-tailed kite and loggerhead shrike

Although white-tailed kite and loggerhead shrike are not known to nest within the project site and no suitable nesting habitat is present on the project site, trees and shrubs adjacent to the project site represent potential nesting habitat for these species respectively. These two species have a moderate to high potential for occurrence in the project vicinity because suitable nesting and foraging habitat are present in the area. Project construction could disturb active nests of these special-status birds, potentially resulting in nest abandonment by the adults and mortality of chicks and eggs. Loss of chicks and eggs of these special-status species could reduce population levels and contribute to a trend toward these species becoming threatened or endangered in the future, which would be a potentially significant impact.

Special-Status Plants

To date, a special-status plant survey has not been completed to confirm the presence or absence of any special-status plant species that the CNPS identifies as potentially occurring in the project area. However, as indicated above and in Table 3.4-1, the 13 species identified in the database search are considered unlikely to occur. Though unlikely, it is possible that one or more of these species could occur in the project area. If these species are present and project construction would result in the direct loss of individual plants and/or populations, the impact could be potentially significant depending on the listing status and nature of impact.

Table 3.4-1 Special Status Plant Species Known to Occur in the Project Region and Their Potential for Occurrence on the Project Site

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Peruvian dodder *Cuscuta obtusiflora* var. *glandulosa*	--	--	2B.2	Wetland. Marshes and swamps (freshwater). Freshwater marsh. 49–919 feet in elevation. Blooms July–October.	Not expected to occur: The project site does not support wetland, freshwater marshes, and swamp habitat suitable for this species.
Dwarf downingia *Downingia pusilla*	--	--	2B.2	Wetland. Valley and foothill grassland (mesic sites), vernal pools. Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 3–1,608 feet in elevation. Blooms March–May.	Not expected to occur: The project site does not support vernal pool or mesic habitat suitable for this species.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	--	SE	1B.2	Wetland. Marshes and swamps (freshwater), vernal pools. Clay soils; usually in vernal pools, sometimes on lake margins. 33–7,792 feet in elevation. Blooms April–August.	Not expected to occur: The project site does not support wetland habitat suitable for this species.
Woolly rose-mallow *Hibiscus lasiocarpos* var. *occidentalis*	--	--	1B.2	Wetland. Marshes and swamps (freshwater). Moist, freshwater-soaked riverbanks and low peat islands in sloughs; can also occur on riprap and levees. In California, known from the delta watershed. 0–509 feet in elevation. Blooms June–September.	Not expected to occur: The project site does not support wetland, freshwater marsh, and swamp habitat suitable for this species.
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	--	--	1B.2	Valley and foothill grassland. Restricted to the edges of vernal pools in grassland. 98–328 feet in elevation. Blooms March–May.	Not expected to occur: The project site does not support vernal pool habitat suitable for this species.
Alkali-sink goldfields *Lasthenia chrysantha*	--	--	1B.1	Vernal pools. Alkaline. 0–656 feet in elevation. Blooms February–June.	Not expected to occur: The project site does not support vernal pool habitat suitable for this species.
Legenere *Legenere limosa*	--	--	1B.1	Vernal pools, wetland. In beds of vernal pools. 3–2,887 feet in elevation. Blooms April–June.	Not expected to occur: The project site does not support vernal pool habitat suitable for this species.

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Heckard's pepper-grass *Lepidium latipes* var. *heckardii*	--	--	1B.2	Valley and foothill grassland, vernal pools. Grassland, and sometimes vernal pool edges. Alkaline soils. 3–98 feet in elevation. Blooms March–May.	**Not expected to occur:** The project site does not support vernal pool habitat suitable for this species.
Pincushion navarretia *Navarretia myersii* ssp. *myersii*	--	--	1B.1	Vernal pools, wetland. Clay soils within non-native grassland. 148–328 feet in elevation. Blooms April–May.	**Not expected to occur:** The project site does not support vernal pool or wetland habitat suitable for this species.
Slender Orcutt grass *Orcuttia tenuis*	FT	SE	1B.1	Vernal pools, wetland. Often in gravelly substrate. 82–5,758 feet in elevation. Blooms May–September (October).	**Not expected to occur:** The project site does not support vernal pool or wetland habitat suitable for this species.
Sacramento Orcutt grass *Orcuttia viscida*	FE	SE	1B.1	Vernal pools, wetland. 49–279 feet in elevation. Blooms April–July (September).	**Not expected to occur:** The project site does not support vernal pool or wetland habitat suitable for this species.
Sanford's arrowhead *Sagittaria sanfordii*	--	--	1B.2	Wetland. Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0–2,133 feet in elevation. Blooms May–October (November).	**Not expected to occur:** The project site does not support vernal pool or wetland habitat suitable for this species.
Saline clover *Trifolium hydrophilum*	--	--	1B.2	Wetland. Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 0–984 feet in elevation. Blooms April–June.	**Not expected to occur:** The project site does not support vernal pool or wetland habitat suitable for this species.

Notes: CRPR = California Rare Plant Rank; CNDDB = California Natural Diversity Database

[1&2] Legal Status Definitions

Federal:
FE Endangered (legally protected)
FT Threatened (legally protected)
State:
SE Endangered (legally protected)

California Rare Plant Ranks:
1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

Threat Ranks:
0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)
0.3 Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

[2] Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present within the project survey area due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available within the project survey area; however, there are little to no other indicators that the species might be present.

Likely to occur: All of the species life history requirements can be met by habitat present within the survey area, and populations/occurrences are known to occur in the immediate vicinity.

Sources: CNDDB 2022; CNPS 2022.

Mitigation Measure 3.4-1: Obtain coverage for the project under the SSHCP

In addition to payment of development fees in accordance with the SSHCP, the Project Applicant shall implement all applicable Avoidance and Minimization Measures codified in the SSHCP at the time permits are obtained. Avoidance and Minimization Measures currently provided in the SSHCP are included in Appendix C.

Significance after Mitigation

Mitigation Measure 3.4-1 would reduce potentially significant impacts to loss of foraging habitat for special-status birds because this measure would require the Project Applicant to participate in the SSHCP reserve system through fee payment or land dedication to offset habitat loss in a coordinated conservation strategy to maintain species viability in the region over the long term. Mitigation Measure 3.4-1 would result in preservation of nesting and foraging habitat in a coordinated and interconnected SSHCP reserve system that considers the species requirements at a regional scale, rather than project-by-project, and presents a coordinated conservation strategy to maintain species viability in the region over the long term. The SSHCP conservation strategy includes surveys, nest buffers, and monitoring that would meet the requirements for CDFW to issue an incidental take permit for the project.

The specific Avoidance and Minimization Measures required to obtain coverage for the project under the SSHCP would be determined through the permitting process. Avoidance and Minimization Measures that may apply to the project include WBO-1 through WBO-7, which require burrowing owl surveys to map burrows, pre-construction surveys, specific avoidance measures to follow in the breeding and non-breeding season, construction monitoring requirements, and passive relocation. Avoidance and Minimization Measures specific to Swainson's hawk include: SWHA-1, which requires surveys for nesting sites within 0.25-mile of in modeled habitat; SWHA-2, which outlines pre-construction survey requirements; and SWHA-3, SWHA-4, and SWHA-5 related to establishing nest buffers, buffer monitoring, and nest tree avoidance. White-tailed kite and loggerheaded shrike are addressed through Avoidance and Minimization Measures RAPTOR-1 through RAPTOR-4, which layout requirements for nesting site surveys, pre-construction surveys, establishing buffers, and monitoring. Finally, special-status SSHCP covered plant species would be addressed through Avoidance and Minimization Measures PLANT-1 and PLANT-2 (if PLANT-1 surveys are positive). While the project area is within 1 mile of the Mather Core area, because suitable habitat for Orcutt grasses is not present, the SSHCP Orcutt-grass specific Avoidance and Minimization Measures are not applicable.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

No Impact. There are no riparian habitat or other sensitive natural communities within the boundaries of the project site. As such, implementation of the project would have no effect on these resources.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact. Based on a site survey conducted by Madrone Ecological Consulting, there are no wetlands or aquatic features within the boundaries of the project site. However, the SSHCP baseline land cover map shows that three small wetlands historically occurred in the area. Based on the results of an October 2021 field visit and on updated existing conditions mapping, two of these wetlands are in an area that has been graded and filled, and the third feature is in an area has also been graded but has reverted to valley grassland (see Figure 3-2). No evidence of ponding or saturated soils were present at the time of the October 2021 survey. The SSHCP authorization process requires review of the baseline land cover mapping and existing land cover documentation and will assign mitigation for impacts based on the confirmed land covers present at the time of authorization. If during the SSHCP review and authorization process any aquatic resources are determined to be present, the project will be required to comply with the mitigation requirements for aquatic resource land cover impacts. Implementation of the SSHCP-required mitigation would reduce any potential impacts to aquatic resources to a less than significant level.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. The Project site does not serve as a corridor between habitat areas, and upland habitat development within an infill site would not substantially interfere with movement of terrestrial or aquatic animals or with use of an established migratory corridor or native wildlife nursery site.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. There are no trees or other biological resources protected under local ordinances present within the boundaries of the project site nor would the project require the removal of any trees. As such, implementation of the project would not conflict with an adopted tree preservation ordinance or policy, and no other policies or ordinances related to biological resources are applicable to the project.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less Than Significant with Mitigation Incorporated. The project site is within the SSHCP Plan Area and within the UDA. The proposed development (i.e., Urban Development in the UDA) is a covered activity under the SSHCP. Therefore, the project would not conflict with the provisions of the adopted SSHCP if all of the appropriate Avoidance and Minimization Measures are implemented as part of the project.

Mitigation Measure 3.4-1: Obtain coverage for the Project under the SSHCP

Implement Mitigation Measure 3.4-1 above.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-1 would ensure that the project would be consistent with the SSHCP. The City of Rancho Cordova, as an implementing party of the SSCHP, would process the SSHCP permit. During this process, the City would review the Aquatic Resources Assessment (Appendix B) performed for the site to evaluate the land cover analysis (and proposed elimination of wetlands from the mapping of the project site) and determine the final list of Avoidance and Minimization Measures required to permit the project. This impact would be less than significant.

3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources.				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Substantially disturb human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

3.5.1 Environmental Setting

The City's General Plan Cultural and Historic Resources Element lists the city's identified historic resources and properties. Most of the prehistoric sites are located along the American River and creeks, and some of the sites are known to contain human remains (City of Rancho Cordova 2006a). General Plan Draft EIR Figure 4.11-1 identifies that there are no archaeological or culturally sensitive areas in the project area (City of Rancho Cordova 2006b).

A cultural resources literature search was conducted in November 2021 by the North Central Information Center of the California Historical Resources Information System at California State University, Sacramento. The records search was conducted to determine if prehistoric or historic cultural resources had been previously recorded within the project site, the extent to which the project site had been previously surveyed, and the number and type of cultural resources within a 0.25-mile radius of the project area.

The North Central Information Center records search indicated that two prior cultural resource studies have been completed within the project area, and an additional nine studies have been completed within the 0.25-mile records search radius. The records search also revealed that one cultural resource (Folsom Mining District-P-34-000335H) has been previously recorded within the project area, and one cultural resource has been recorded within the 0.25-mile records search radius.

Resource P-34-000335H consists of the Folsom Mining District, which was originally recorded in 1969. The District has undergone various updates which have added mining features including several huge dredge fields, massive tailings piles, buildings, mines, tunnels, canals, camps, cemeteries, and other related features. In 1995, it was recommended that some of the features and dredge fields within the District be eligible under National Register of Historic Places (NRHP) and California Register of Historic Resources (CRHR) criteria.

An intensive pedestrian survey of the project area was conducted on December 27, 2021. During the survey, all visible ground surfaces were carefully examined for cultural material (e.g., flaked stone tools, tool-making debris, stone milling tools, or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), and historic-era debris (e.g., metal, glass, ceramics). Ground disturbances (e.g., animal burrows, dirt roads) were also visually inspected. No new cultural resources were identified within the project area during the field survey. Further, no indication of subsurface archaeological remains was noted in areas of past ground-disturbance.

A portion of the Folsom Mining District (i.e., tailings piles) falls within the project site. The tailings are a contributor to the District (NRHP/CRHR criterion A/1 and C/3); however, the portion of the tailings in the project area has lost integrity through past grading and disturbance. Additionally, the surrounding urbanized development visually detract from any integrity of setting, feeling, or association (NIC 2022).

3.5.2 Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

No Impact. Historical resources include standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges). "Historical resource" is a term with a defined statutory meaning (PRC Section 21084.1; determining significant impacts to historical and archaeological resources is described in the State CEQA Guidelines, Sections 15064.5[a] and [b]). No historic structures were identified within the project site during records search review or surveys of the project site (NIC 2022). Thus, the project would not damage or otherwise change the significance of historical resources.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than Significant with Mitigation Incorporated. As described above, a portion of the Folsom Mining District (i.e., tailings piles) falls within the project site. The tailings serve as a contributor to the District under CRHR criterion A/1 and C/3; however, they have lost integrity through past grading and disturbance in the area. Therefore, implementation of the project would not damage the portion of the tailings, because the portion within the project site has already lost integrity. Impacts to the Folsom Mining District (P) would be less than significant.

As previously discussed, no indication of subsurface archaeological remains was present during an intensive pedestrian survey of the project area. As such, the potential for discovery of archaeological material is estimated to be low (NIC 2022). Nevertheless, the possibility remains that archaeological materials could be encountered during construction-related ground disturbing activities. This impact would be potentially significant.

Mitigation Measure 3.5-1: Protection of Known and Unknown Archaeological Resources

The following shall be implemented during any ground-disturbing activities associated with project construction:

- In the event that unknown buried cultural deposits (e.g., prehistoric stone tools, milling stones, historic glass bottles, foundations, cellars, privy pits) are encountered during project construction, all ground-disturbing activity within 50 feet of the resources shall be halted and a qualified professional archaeologist (36 Code of Federal Regulations [CFR] 61) and appropriate Native American tribal representative shall be notified immediately and retained to assess the significance of the find. Construction activities could continue in other areas.
- If the find is determined to be significant by the qualified archaeologist or Native American tribe (i.e., because it is determined to constitute either a historical resource or a unique archaeological resource), the archaeologist shall develop appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include but would not necessarily be limited to preservation in place, archival research, subsurface testing, or contiguous block unit excavation and data recovery.
- If the qualified archaeologist determines the archaeological material to be Native American in nature, the City of Rancho Cordova shall contact the culturally affiliated Native American tribe for their input on the preferred treatment of the find.

Significance after Mitigation

Implementation of Mitigation Measure 3.5-1 would reduce impacts to a less-than-significant level by requiring cessation of work, implementation of proper data recovery, and/or preservation procedures upon discovery of previously unknown resources.

c) Substantially disturb human remains, including those interred outside of formal cemeteries?

Less than Significant. Based on documentary research, no evidence suggests that any prehistoric or historic-era marked or un-marked human interments are present within or in the immediate vicinity of the project site. However, the location of grave sites and Native American remains can occur outside of identified cemeteries or burial sites. Therefore, there is a possibility that unmarked, previously unknown Native American or other graves could be present within the project site and could be uncovered by project-related construction activities.

California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Sections 7050.5 and PRC Section 5097.

These statutes require that, if human remains are discovered during any construction activities, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the Sacramento County coroner and Native American Heritage Commission (NAHC) shall be notified immediately, in accordance with to PRC Section 5097.98 and Section 7050.5 of California's Health and Safety Code. If the remains are determined by NAHC to be Native American, the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the archaeologist, the NAHC-designated Most Likely Descendant, and the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94.

The City's General Plan, Action CHR 1.3.2, states the City will incorporate the following condition in applicable permits for all discretionary projects:

> The Planning Department shall be notified immediately if any human remains are uncovered and all construction must stop in vicinity of the find. The Planning Division shall notify the County Coroner according to Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed.

Compliance with California Health and Safety Code Sections 7050.5 and PRC Section 5097, as directed by the conditions of approval required through application of General Plan Action CHR 1.3.2, would provide an opportunity to avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered.

3.6 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy.				
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

3.6.1 Environmental Setting

California relies on a regional power system composed of a diverse mix of natural gas, petroleum, renewable, hydroelectric, and nuclear generation resources:

- Natural gas: Almost two-thirds of California households use natural gas for home heating, and about half of California's utility-scale net electricity generation is fueled by natural gas (EIA 2021).
- Petroleum: Petroleum products (gasoline, diesel, jet fuel), which are consumed almost exclusively by the transportation sector, account for almost 99 percent of the energy used in California by the transportation sector, with the rest provided by ethanol, natural gas, and electricity (Bureau of Transportation Statistics 2017). Between January 2007 and May 2016, an average of approximately 672 billion gallons of gasoline were purchased in California (California State Board of Equalization 2016). Gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet specific formulations required by the CARB (EIA 2021).
- Electricity and renewables: The California Energy Commission estimates that 34 percent of California's retail electricity sales in 2018 was provided by Renewable Portfolio Standard-eligible renewable resources (EIA 2021).
- Alternative fuels: Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many alternative transportation fuels (e.g., biodiesel, hydrogen, electricity). Use of alternative fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, 2017 Scoping Plan).

Electricity service in the City of Rancho Cordova is provided by Sacramento Municipal Utility District and natural gas service is provided by Pacific Gas and Electric Company.

3.6.2 Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant. The proposed project would increase energy use from existing conditions from both construction and operational activities.

Construction

Energy would be required to operate and maintain construction equipment and transport construction materials. The one-time energy expenditure required to construct the physical buildings and infrastructure associated with the

Project would be nonrecoverable. Most energy consumption would result from operation of off-road construction equipment and on-road vehicle trips associated with commutes by construction workers and haul trucks trips.

Table 3.6-1 summarizes the levels of energy consumption associated with the construction of the project by construction year. Most of the construction-related energy consumption would be associated with off-road equipment and the transport of equipment and waste using on-road haul trucks for all phases of construction. An estimated 91,194 gallons of gasoline and 41,964 gallons of diesel fuel would be used during construction of the project (see Appendix D).

Table 3.6-1 Construction Energy Consumption

Year	Diesel (Gallons)	Gasoline (Gallons)
2022	14,524	5,372
2023	18,115	37,039
2024	1,377	36,759
2025	7,948	12,024
Total	**41,964**	**91,194**

Notes: Gasoline gallons include on-road gallons from worker trips. Diesel gallons include off-road equipment and on-road gallons from worker and vendor trips.

Source: Calculations by Ascent Environmental in 2022.

The energy needs for project construction would be temporary and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Associated energy consumption would be typical of that associated with commercial and residential projects of this size in an urban setting. Automotive fuels would be consumed to transport people to and from the project site. Energy would be required for construction elements and transport construction materials. The one-time energy expenditure required to construct the physical infrastructure associated with the project would be nonrecoverable. There is no atypical construction related energy demand associated with the proposed project. Non-renewable energy would not be consumed in a wasteful, inefficient, and unnecessary manner when compared to other construction activity in the region.

Operation

The project would increase electricity consumption in the region relative to existing conditions. However, the new facilities would, at a minimum, be built to 2019 Title 24 Building Energy Efficiency Standards, which are 53 percent more efficient than 2016 Standards (CEC 2018). In addition, all buildings (residential and non-residential) would participate in SMUD's SolarShares program, increasing the amount of clean/renewable energy sources compared to projects that do not participate in the SolarShares program. Further, the residential buildings would be electric-only and the natural gas use associated with the community center would be limited to two outdoor fire pits, cooking appliances (i.e., grills), and heating for the pool/spa; thus, natural gas use would be minimal. Table 3.6-2 summarizes the levels of energy consumption associated with the operation of the project for the first full year (2026) of operations compared to the existing land uses.

Table 3.6-2 Operational Energy Consumption

Energy Type	Energy Consumption	Units
Electricity	1,597	MWh/year
Natural Gas	14,081	Therms/year
Gasoline	196,025	gal/year
Diesel	6,770	gal/year

Notes: MWh/year = megawatt-hours per year; gal/year = gallons per year.

Source: Calculations by Ascent Environmental in 2022.

Operation of the project would be typical of residential and commercial uses requiring electricity for lighting, climate control, kitchen facilities, and miscellaneous appliances. Title 24 Building Energy Efficiency Standards would be integrated into the project to reduce the projects energy demands. Furthermore, as discussed in Section 3.17, "Transportation", the project is in an area where the VMT is lower than 15 percent of the regional household average.

The net fuel consumption associated with project-related vehicle trips would not be considered wasteful, inefficient, or unnecessary in comparison to other similar developments in the region. State and federal regulations regarding fuel efficiency standards for vehicles in California are designed to reduce wasteful, inefficient, and unnecessary use of energy for transportation

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

No Impact. Relevant plans that pertain to the efficient use of energy include the Energy Efficiency Action Plan, which focuses on energy efficiency and building decarbonization (CEC 2019); as well as the City's General Plan, which seeks to reduce per capita energy consumption through education and development of energy efficiency buildings.

As discussed in Impact 3.6-1, although implementation of the project has the potential to result in the overall increase in consumption of energy resources during construction and operation of new buildings and facilities, implementation of the project would ensure various energy conservation and generation features would be incorporated into new development including the installation of renewable energy features and the installation of energy efficient appliances and features, which would align with the Energy Efficiency Action Plan and City's General Plan. Therefore, the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

3.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils.				
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

3.7.1 Environmental Setting

According to the City of Rancho Cordova General Plan EIR, there are no known active faults or Alquist-Priolo Fault Zones in Sacramento County (City of Rancho Cordova 2006b). Based on mapping by California Geologic Survey, the nearest Alquist-Priolo Fault Zones include the Cordelia and Green Valley Faults, over 50 miles west of the project site (CGS 2021). The nearest active fault (i.e., faults with activity within the last 10,000 years) is the Dunnigan Hills fault, approximately 40 miles northwest of the project site. The project site is within an area that can expect to experience ground motion of low severity (City of Rancho Cordova 2006b).

According to the Rancho Cordova General Plan EIR, most soils in the city are the result of alluvial deposits, or river and lake deposits on various geomorphic surfaces. The majority of soil units within the City have low to moderate water holding capacities, slight to moderate erosion potential, very low to medium runoff rates, and high shrink-swell characteristics (City of Rancho Cordova 2006b).

The geology of the project site and surrounding area is characterized by dredge spoil sediments composed of gravels, cobbles, and boulders (CSS Environmental Services, Inc. 2020a). The site was dredged for gold recovery, resulting in gravel and cobble ridges, commonly referred to as "tailings windrows," and clays and silts were washed overboard and deposited in ponds between the ridges, referred to as "slickens deposits." Soil conditions are not uniform due to past dredging operations, and include potentially compressible clays and silts in the former slickens ponds as well as potential for buried undocumented debris. The project site slopes gently from east to west, but is generally flat. The depth to groundwater at the project site is expected to range from 50 to 100 feet below ground surface (bgs) (MPE 2020).

Based on the soil characteristics, flat topography, depth to groundwater, and distance to active faults, there is low potential for geologic hazards from landslides, steep areas, rock falls, mud flows, liquefaction, and expansive soils at the project site. Review of recent geologic maps and data finds that the Project Area is underlain by Middle-to-Late Pleistocene (450 to 130 thousand years ago) alluvium of the Riverbank Formation. The Riverbank Formation is well represented by important paleontological remains. According to the Cultural and Paleontological Assessment prepared for the Residences Project, University of California Museum of Paleontology records indicate that no unique geologic features, fossil-bearing strata, or paleontological sites have been previously recorded within or near the Residences project site. Additionally, no paleontological resources of any kind were observed within the Residences project site during the field survey undertaken for the assessment (Natural Investigations Company 2022).

3.7.2 Discussion

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)

No Impact. As discussed in Section 3.7.1, the project site is not within an Alquist-Priolo Fault Zone and is located over 50 miles east of the nearest Alquist-Priolo Fault Zones (CGS 2021). Therefore, the project would not cause substantial adverse effects involving rupture of a known earthquake fault.

ii) Strong seismic ground shaking?

Less than Significant The California Supreme Court decision in California Building Industry Association v. Bay Area Air Quality Management District has resulted in changes to CEQA with regard to the effects of existing environmental conditions (such as seismic hazards) on a project's future users or residents. The effects of the environment on a project are generally outside the scope of CEQA unless the project would exacerbate these conditions, as concluded by the California Supreme Court (see California Building Industry Association v. Bay Area Air Quality Management District [2015] 62 Cal.4th 369, 377 ["we conclude that agencies generally subject to CEQA are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users."]). Changes to the State CEQA Guidelines to reflect this decision were adopted on December 28, 2018. CEQA cannot be used by a lead agency to require a developer or other agency to obtain an EIR or implement mitigation measures solely because the occupants or users of a new project would be subjected to the level of hazards specified.

As described in Section 3.7.1, the project site is not within an active fault zone; however, earthquakes in the region have potential to cause seismic ground shaking of low severity at the project site. Construction and building design of the project is subject to the City's Building Code (Chapter 16.04 of the Rancho Cordova Municipal Code), which incorporates the 2019 California Building Code and 2018 International Building Code standards. The City's Building Code requires implementation of seismic design standards in new development projects to reduce seismically-induced building damage and public safety risks. Project construction and operation would not create new seismic events or exacerbate existing seismic hazards, because the improvements would involve limited excavation that would not alter seismic and fault conditions in the region. Therefore, the project would not cause substantial adverse effects from strong seismic ground shaking.

iii) Seismic-related ground failure, including liquefaction?

Less than Significant. Liquefaction is the process in which water is combined with unconsolidated soils, generally from ground motion and pressure, which causes the soils to behave like quicksand. Liquefaction potential is determined from a variety of factors, including soil type, soil density, depth to the groundwater table, and the duration and intensity of ground shaking. Liquefaction is most likely to occur in deposits of water-saturated alluvium or areas of considerable artificial fill. Other types of seismic-related ground failure include ground lurching, differential settlement, and lateral spreading.

The potential for liquefaction and other seismic-related ground failure is considered low because the depth to groundwater is greater than 50 feet bgs and the distance to the nearest active fault is over 40 miles from the project site. The site is not located within a State Designated Seismic Hazard Zone for liquefaction (MPE 2020). Therefore, the project would not cause substantial adverse effects from seismic-related ground failure, including liquefaction.

iv) Landslides?

No Impact. The project site is an infill property surrounded by urban development. The potential for landslides to occur is negligible because the topography is generally flat and there are no steep slopes within or adjacent to the project site. Therefore, the project would not cause substantial adverse effects from landslides.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant. Soil erosion refers to the process by which soil or earth material is loosened or dissolved and removed from its original location. Erosion can occur by varying processes and may occur in the project site where bare soil is exposed to wind or moving water (both rainfall and surface runoff). The processes of erosion are generally a function of material type, terrain steepness, rainfall or irrigation levels, surface drainage conditions, and general land uses.

All projects that result in a disturbance area of more than 1 acre (43,560 square feet [sq. ft.]) are required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). The Construction General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP), which BMPs for erosion and sediment control. The Construction General Permit is issued and enforced by the appropriate Regional Water Quality Control Board (RWQCB). The project site is within the jurisdiction of the Central Valley RWQCB and the project would be subject to all existing regulations associated with the protection of water quality, including erosion and sediment control.

Project-related construction activities that include ground disturbance, such as excavation, grading, and trenching would increase the potential for erosion to occur. The project would involve the disturbance of 22.9 acres of soil; therefore, the project must comply with the provisions of the NPDES Construction General Permit issued by the Central Valley RWQCB. The project would require preparation of a SWPPP with BMPs to control erosion. These requirements are consistent with the land grading and erosion control requirements outlined in Chapter 16.44 of the Rancho Cordova Municipal Code. Furthermore, the Project would comply with the SMAQMD Rule 403 (Fugitive Dust), which requires daily watering of unpaved areas to stabilize soil and prevent wind erosion events.

Once operational, the project site would be developed with approximately 15.2 acres of impervious area (70 percent of the total area), including buildings, asphalt parking lots, and concrete walkways (RSC Engineering, Inc. 2021a: Appendix C). As described in the Preliminary Stormwater Quality Report, the project would be designed to meet the stormwater quality and low impact development (LID) requirements of the Stormwater Quality Design Manual for the Sacramento Region (RSC Engineering, Inc. 2021a). Proposed stormwater features, which include stormwater planter facilities, underground stormwater treatment devices, and disconnected roof drain systems, would reduce erosion potential from operational runoff. Furthermore, landscaping would reduce erosion potential in unpaved areas. With adherence to applicable rules and regulations and implementation of BMPs and LID practices, the project would result in a less-than-significant impact related to erosion and loss of topsoil.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than Significant. Refer to Sections 3.7.2(a)(iii) and (iv) above. The project site is underlain with dredge spoil sediments composed of gravels, cobbles, and boulders (CSS Environmental Services, Inc. 2020a). The potential for on- or off-site landslides, lateral spreading, liquefaction, or collapse is considered low because the topography of the project site and surrounding area is generally flat, the depth to groundwater is greater than 50 feet bgs, and the distance to the nearest active fault is over 40 miles from the project site.

The soils in the former slickens ponds are not considered suitable for support of proposed improvements and engineered fill, due to the risk of excessive settlement associated with the low-density soils. Deep deposits of clay and silt exist beneath proposed building footprints could result in settlement in response to fill and structural loads. Therefore, slickens materials will require complete removal and recompaction. However, these soils would be suitable for use in engineered construction, if they are excavated, mixed with on-site gravels and cobbles, moisture conditioned and properly compacted. The project would include over excavation of soils within the building pads and placement of engineered fill to improve the uniformity of support and bearing capacity of the native soils, and to reduce the risk of differential settlement. The specific requirements will be developed in a design-level geotechnical investigation (MPE 2020).

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

Less than Significant. Expansive soils are typically associated with fine-grained clayey soils that have the potential to shrink and swell with repeated cycles of wetting and drying. Laboratory testing of the on-site clays indicates they possess a medium expansion potential when tested in accordance with the ASTM D4829 test method. These soils experience volume changes with varying soil moisture contents and are capable of exerting moderate expansion pressures upon foundations and concrete slabs-on-grade, including sidewalks (MPE 2020).

The Residences Project would be subject to California Building Code standards, which include common engineering practices requiring special design and construction methods that reduce or eliminate potential expansive soil related impacts. Therefore, substantial risks to life or property would not occur.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Sacramento Area Sewer District (SASD) provides sewer services within the City and operates utility lines within the roadways adjacent to the project site. In addition, the project site is within the service area of Sacramento Regional County Sanitation District (Regional San), which provides regional wastewater conveyance and treatment services. Wastewater within the Regional San service area is treated at the Sacramento Regional Wastewater Treatment Plant (SRWTP) in the City of Elk Grove. The Residences Project would be served by SASD and Regional San and does not propose the use of septic tanks or alternative waste water disposal systems. Therefore,

there would be no impact related to soils incapable of supporting the use of septic tanks or alternative waste water disposal systems.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant. As described in Section 3.7.1, no unique geologic features, fossil-bearing strata, or paleontological sites have been previously recorded or observed within or near the project site. Furthermore, excavation during project construction would occur in an area overlain by thick deposits of mining tailings and associated soils. The historic mining activities have so severely affected the condition of soils on the project site, the potential to encounter intact Pleistocene deposits is low (Natural Investigations Company 2022). Although unlikely, ground-disturbing activities during project construction may result in the unanticipated discovery of paleontological resources. The City's General Plan, Action CHR 1.3.2, requires that the following condition be incorporated in permits for all discretionary projects:

> The Planning Department shall be notified immediately if any cultural resources (e.g., prehistoric or historic artifacts) or paleontological resources (e.g., fossils) are uncovered during construction. All construction must stop in vicinity of the find and an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology or a paleontologist shall be retained to evaluate the finds and recommend appropriate action.

The project would be required to comply with all permit conditions imposed by the City, including the above procedures to follow in the event of an unanticipated discovery of paleontological resources; therefore, the project would not destroy a unique paleontological resource or site or unique geologic feature.

3.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Greenhouse Gas Emissions.				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.8.1 Environmental Setting

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with on-road and off-road transportation, industrial/manufacturing, electricity generation by utilities and consumption by end users, residential and commercial on-site fuel usage, and agriculture and forestry. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (IPCC 2014:5).

Climate change is a global problem. GHGs are global pollutants because even local GHG emissions contribute to global impacts. GHGs have long atmospheric lifetimes (one to several thousand years) and persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any particular GHG molecule is dependent on multiple variables and cannot be determined with any certainty, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration (IPCC 2013:467).

GREENHOUSE GAS EMISSION SOURCES AND SINKS

As discussed previously, GHG emissions are attributable in large part to human activities. CO_2 is the main byproduct of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices, organic material decomposition in landfills, and the burning of forest fires (Black et al. 2017). Nitrous oxide emissions are largely attributable to agricultural practices and soil management. CO_2 sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water); respectively, these are the two of the most common processes for removing CO_2 from the atmosphere.

REGULATORY SETTING

Statewide GHG Emission Targets and the Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the state government for approximately two decades (State of California 2018). GHG emission targets established by the state legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). EO S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. EO B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets align with the scientifically established levels needed globally to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (UN 2015).

The 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by the CARB, outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017b). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). The State has also passed more detailed legislation addressing GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption. In May 2022, CARB released the *Draft 2022 Scoping Plan Update*; however, at the time of preparing this checklist, CARB has not adopted the final version of this update.

Sacramento Metropolitan Air Quality Management District

SMAQMD is the primary agency responsible for addressing air quality concerns in Sacramento County–its role is discussed further in Section 3.2, "Air Quality." SMAQMD also recommends measures for analyzing project-generated GHGs in CEQA analyses and offers multiple potential GHG reduction measures for land development projects. SMAQMD developed thresholds of significance to provide a uniform scale to measure the significance of GHG emissions from land use and stationary source projects in compliance with CEQA, SB 32, and the 2017 Scoping Plan. SMAQMD's goals in developing GHG thresholds include ease of implementation, use of standard analysis tools, and emissions mitigation consistent with SB 32 (SMAQMD 2020b).

The City of Rancho Cordova is currently developing its Climate Action Plan in alignment with state GHG emission reduction goals. Therefore, the assessment of GHG emissions in this analysis is based on guidance from SMAQMD. In its *2020 Greenhouse Gas Thresholds for Sacramento County* Justification Report, SMAQMD outlines the consistency between its thresholds of significance and the targets of the 2017 Scoping Plan. SMAQMD prepared an inventory for Sacramento County in 2030 and developed local emission reduction targets by sector in line with the local reductions needed to meet the goals of SB 32 and the 2017 Scoping Plan. In its Justification Report, SMAQMD states that to "demonstrate consistency with the GHG targets by sector for new developments…project proponents shall commit to a menu of best management practices" (SMAQMD 2020b:39). These best management practices (summarized below) are intended to apply to all new land use development projects and are sufficient to mitigate a project's long-term, operational emissions to the degree that it would not conflict with the long-term goals of the 2017 Scoping Plan and SB 32.

Based on SMAQMD's guidance, which includes a tiered approach to determining project significance, the project would result in a cumulatively considerable contribution to climate change if it would:

Construction

Result in construction emissions that exceed 1,100 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year.

Operation

Be inconsistent with the 2017 Scoping Plan by not implementing SMAQMD GHG reduction measures or equivalent on/off site mitigation. The following tiered approach shall be used to determine consistency:

- Tier 1 GHG Reduction Measures
  - Projects shall be designed and constructed without natural gas infrastructure.
  - Projects shall meet the current CalGreen Tier 2 electric vehicle (EV) charging standards except all EV capable spaces[1] shall instead be EV ready[2].
  - Projects that exceed 1,100 $MTCO_2e$ after implementation of Tier 1 GHG reduction measures must implement Tier 2 GHG reduction measures.
- Tier 2 GHG Reduction Measures
  - Residential projects shall achieve a 15 percent reduction in VMT per resident and office projects shall achieve a 15 percent reduction in VMT per worker compared to existing average VMT for the county, and retail projects shall achieve no net increase in total VMT to show consistency with the Office of Planning and Research (OPR) SB 743.

3.8.2 Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than significant. GHG emissions associated with the project would be generated during construction and operation, discussed separately below.

Construction

Project-related construction activities would result in the generation of GHG emissions from the use of heavy-duty off-road construction equipment, delivery trucks associated with materials transport, and vehicle use during worker commute during construction. As indicated in Section 3.3, "Air Quality," of this checklist, the project would comply with SMAQMD's construction BMPs for exhaust emissions control including, reducing idling to no more than 5 minutes and certification of compliance for CARB In-Use Off-Road Diesel-Fueled Fleets Regulation. Project-related construction emissions are confined to a relatively short period (i.e., 36-months) in relation to the overall life of the project and would be considered temporary. Table 3.8-1 provides a summary of the total construction-related emissions that would occur as a result of new land uses.

Table 3.8-1 Construction-Generated Greenhouse Gas Emissions

Construction Year	Total GHG $MTCO_2e$ per Year
2022	284
2023	663
2024	660
2025	243
SMAQMD Threshold of Significance	1,100

Notes: Totals may not add due to rounding.

$MTCO_2e$ = metric tons of carbon dioxide equivalent; GHG = greenhouse gas.

Source: Modeled conducted by Ascent Environmental in 2022.

[1] 2019 California Green Building Standards Code (CALGreen, Title 24, Part 11) requires EV capable parking spaces to install a "raceway" (the enclosed conduit that forms the physical pathway for electrical wiring to protect it from damage) and adequate panel capacity to accommodate future installation of a dedicated branch circuit and charging station(s).

[2] 2019 CALGreen, Title 24, Part 11 requires EV ready parking spaces to be equipped according to EV capable standards plus the installation of dedicated branch circuit(s) (electrical pre-wiring), circuit breakers, and other electrical components, including a receptacle (240-volt outlet) or blank cover needed to support future installation of one or more charging stations.

As shown in Table 3.8-1 the project's emissions would not result in an exceedance of the SMAQMD construction threshold and would not result in a cumulatively considerable increase in GHG emissions.

Operation

Operation of the project would result in mobile-source GHG emissions from vehicle trips (i.e., project-generated VMT), area-source emissions from the operation of landscape maintenance equipment, energy use emissions from consumption of electricity and natural gas, water-related energy consumption associated with water use and the conveyance and treatment of wastewater, and waste-generated emissions from the transport and disposal of solid waste. Regarding building-related energy use, the modeling assumed that all buildings would be electric-only, with the exception of natural gas use for up to two outdoor fireplaces, outdoor grills, heating the pool/spa associated with the club houses, and cooking appliances at the proposed restaurant. Table 3.8-2 below summarizes the project's operational emissions for the buildout year of 2026. Based on the proposed land uses and using project-specific information where available (e.g., traffic study), operational emissions were estimated to be 2,322 MTCO2e/year.

Table 3.8-2 Unmitigated Operational Greenhouse Gas Emissions

Emissions Source	Total $MTCO_2e$ per Year
Area	7
Electricity	404
Natural Gas	76
Mobile (Vehicular)	1,616
Waste	182
Water	37
Total	**2,322**
SMAQMD Screening Level Threshold	**1,100**

Notes: Totals may not add due to rounding.

$MTCO_2e$ = metric tons of carbon dioxide equivalent; GHG = greenhouse gas.

Source: Modeled conducted by Ascent Environmental in 2022.

As explained above, SMAQMD uses a two-tiered approach to determining consistency with state targets intended to reduce the environmental impacts of GHG emissions. To satisfy Tier 1, projects should not include natural gas use and must meet the current CalGreen Tier 2 EV charging standards except all EV capable spaces shall instead be EV ready. SMAQMD determined that by not eliminating natural gas from new development the project would not be consistent with the reduction targets of the 2017 Scoping Plan. Additionally, development is required to support zero emissions vehicles to help achieve 2017 Scoping Plan reduction targets. To be consistent with the 2017 Scoping Plan, emissions from natural gas consumption must be mitigated and the project must ensure that it can be converted to all-electric in the future. The project also needs to ensure that CalGreen EV ready spaces are installed, or emissions must be mitigated off-site. The following project-design features would suffice SMAQMD's Tier 1 GHG Reduction Measure, as demonstrated below.

Landscape and Shading

- The project includes 804 new tree plantings

Bicycle Parking/Storage

- The project will exceed CalGreen bike parking standards for short- and long-term bike parking/storage

Building Energy

- All project buildings will participate in SMUD's SolarShare program
- All non-residential buildings will be designed with electrical capacity sufficient to support future electrification
- All new structures will include cool roofs

- At least 25 percent of paved area will have an albedo of no less than 0.25

EV Charging

- At least 12 EV Chargers
- At least 218 EV Ready Stalls (23 percent of total)

Considering the above project features, GHG reductions were applied as credits to the project for measures that are not required by other existing local or State law. Specifically, regarding EV charging, the project would meet and exceed the EV-ready SMAQMD requirement by including 218 EV Ready Stalls and at least 12 EV chargers. GHG reductions associated with the 12 chargers were estimated and applied to the project. Regarding building energy, participation in SMUD's SolarShares program and considering SMUD's 2030 carbon neutrality goals, electricity- GHG emissions would become zero in the future. Last, the inclusion of 804 trees on the project site would result in GHG reductions in the form of a credit from natural sequestration capacity. Table 3.8-3 summarizes these onsite GHG reductions applied to the project.

Table 3.8-3 Adjusted Operational Greenhouse Gas Emissions

Emissions Source	Total $MTCO_2e$ per Year
Area	7
Electricity	404
Natural Gas	76
Mobile (Vehicular)	1,616
Waste	182
Water	37
GHG Reductions	
Electricity	-404
EV Chargers (12)	-59
Sequestration	-28
Total Onsite Reductions	-491
Adjusted Project Total GHG Emissions	**1,831**

Notes: Totals may not add due to rounding.

$MTCO_2e$ = metric tons of carbon dioxide equivalent; GHG = greenhouse gas.

Source: Modeled conducted by Ascent Environmental in 2022.

Therefore, although the project would include use of natural gas, the modeling illustrates that project features would offset the emissions associated with this use. Therefore, Tier 1 GHG Reduction Measures would be satisfied.

Tier 2 reduction measures are triggered when projects exceed the 1,100 $MTCO_2e$ screening threshold after implementation of Tier 1 GHG reduction measures. Because the project emissions would be 1,831 $MTCO_2e$ after implementation of Tier 1 GHG reduction measures (see Table 3.8-3), the Tier 2 threshold also applies. Tier 2 is demonstrated to be achieved by adherence to the local VMT guidance for demonstrating consistency with SB 375. The project is located in a VMT efficient area (in an area with at least 15 percent below the base year regional average household VMT per capita). This was determined based on screening maps prepared by the City using the focused version of SACOG's SACSIM19 regional model. Therefore, no further action would be required to achieve consistency with the Tier 2 GHG Reduction Measure.

Because the project would include EV-Ready stalls that exceed CalGreen requirements and would be designed to allow the future electrification of non-residential buildings, the project would be consistent long-term climate goals outlined in the 2017 Scoping Plan and justified in SMAQMD's CEQA guide, as summarized above under the heading "Sacramento Metropolitan Air Quality Management District." The inclusion of onsite EV charges and 804 trees would

offset emissions associated with natural gas. Last, the project was identified as being within a VMT efficient area consistent with SMAQMD Tier 2 GHG Reduction Measure and, therefore, would be consistent with the OPR SB 743 technical advisory de minimis criteria for VMT (Lum, pers. comm. 2022).

The 2017 Scoping Plan and SB 32 establish target emission levels under the presumption that achieving these targets through GHG emissions reduction would avoid or substantially lessen significant impacts on the environment. Based on the evidence provided in SMAQMD's Justification Report linking the application of best management practices in new development to consistency with the 2017 Scoping Plan, the project's consistency with SMAQMD's Tier 1 and Tier 2 GHG Reduction Measures indicates that it would not conflict with the State's 2017 Scoping Plan. Moreover, consistency with SMAQMD's Tier 1 and Tier 2 GHG Reduction Measures would result in GHG emission levels that do not have a significant impact on the environment. This impact would be **less than significant.**

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

See response in item (a) above.

3.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hazards and Hazardous Materials.				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

3.9.1 Environmental Setting

PHASE I ENVIRONMENTAL SITE ASSESSMENT RESULTS

Phase I Environmental Site Assessments (ESA) were completed for the 7.28-acre property encompassing APNs 072-068-065 and 072-068-068 (CSS Environmental Services, Inc. 2020a) and for the 14.54-acre property encompassing APNs 072-026-051, 072-026-054, and 072-026-056 (CSS Environmental Services, Inc. 2020b). The Phase I ESAs were performed to evaluate whether recognized environmental conditions (REC) exist at the properties. A REC is defined by the American Society for Testing and Materials as the "presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material

threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property."

No evidence of a REC was identified in connection with the properties. However, the following environmental conditions were identified:

- Land use restrictions have been recorded on APN 072-026-056.
- Buried inert waste, concrete, and other debris were found on at least one parcel, and may need to be removed if underground construction activities are planned.
- Two offsite properties that are greater than 0.25-mile from the Residences project site (the Former Purity Oil Sales/Delta Gunite Site and the Aerojet General Corporation Site) have plumes of groundwater contamination that present the risk of creating a REC at the Residences project site. The groundwater contamination originating from these properties has potential to migrate to the subject property, potentially degrading groundwater quality and limiting the future use of groundwater.
- Soils impacted with oils were identified on APNs 072-026-054 and 072-026-056, and appropriate removal/remedial actions have been completed. If previously unidentified contamination is discovered at the property, additional assessment, investigation, and/or remediation may be required.

HAZARDOUS MATERIALS SITES

The parcel in the northwest corner of the project site (APN 072-026-056) is listed as a voluntary cleanup site on the Department of Toxic Substances Control (DTSC) EnviroStor database (DTSC 2022). The Project Applicant established a voluntary agreement to investigate, remediate, and/or evaluate any hazardous substance that may be present at the parcel, under the oversight of DTSC (Ridenour, pers. comm., 2021). The voluntary agreement was intended to remedy the parcel to accommodate the uses proposed under the Residences Project.

Soil investigations completed at the parcel revealed elevated concentrations of total petroleum hydrocarbon, polychlorinated biphenyls (PCB), perchlorate, and lead in site soils. Cleanup actions included the removal of impacted soil to a depth of 4 feet below grade. However, further testing revealed that total petroleum hydrocarbons as motor oil still exceeded the cleanup target levels and may be disturbed by future construction activities at the parcel. In 2013, subsequent remediation activities were performed at the parcel, which resulted in the removal of approximately 126 cubic yards of contaminated soil to approximate depth of 4 feet bgs (Wallace-Kuhl & Associates 2021).

In June 2010, a Land Use Covenant was established for the 3.02-acre parcel, which prohibits the following land uses: residences, hospitals for humans, public and private schools for persons under 21 years of age, and day cares for children. The Land Use Covenant also requires preparation of a Soil Management Plan for future soil disturbances. The Project Applicant prepared a Soil Management Plan for the parcel in August 2021, which includes procedures to be followed during site grading, excavation, stockpiling, soil sampling and laboratory analyses (if required), and backfilling activities associated with the handling of suspected or known contaminated soil (Wallace-Kuhl & Associates 2021). DTSC also identified the potential for adverse health effects from vapor intrusion at the parcel and recommended assessment of soil gas if human occupation of enclosed buildings may occur at the parcel (Amador, pers. comm., 2021).

SCHOOLS

There are no existing or proposed schools within 0.25 mile of the project site. The nearest school is Capitol Academy, a private educational institution located at 3063 Gold Canal Drive in the City Rancho Cordova, approximately 0.3 mile north of the project site.

AIRPORTS

The Mather Airport is a public airport approximately 1.3 miles south of the project site. The project site is within the airport influence area of the Mather Airport, which is the area where noise, safety, airspace protection, and overflight notification policies and compatibility criteria may affect land uses or necessitate restrictions on those uses (SACOG 2020).

EMERGENCY RESPONSE

The City adopted the Sacramento County Multi-Hazard Disaster Plan (SCMDP), which was established to address planned response to extraordinary emergency situations associated with natural disasters and technological incidents. The SCMDP focuses on operational concepts relative to large-scale disasters, which can pose major threats to life and property requiring unusual emergency responses. The SCMDP was designed to include Sacramento County as a part of the California Standardized Emergency Management System, which assigns responsibilities to support implementation of the SCMDP and to ensure successful response during a major disaster.

WILDLAND FIRE RISKS

According to the California Department of Forestry and Fire Protection, the project site is within a non-very high fire hazard severity zone (VHFHSZ) in a local responsibility area (CAL FIRE 2008).

3.9.2 Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant. A hazardous material is defined as any material that due to its quantity, concentration, physical or chemical characteristics, poses a significant present or potential hazard to human health or to the environment if released. Project-related construction may involve the temporary use, transport, and disposal of hazardous materials in the form of inorganic and organic chemicals, solvents, paints, oil, gasoline, cleansers. However, the construction-related transport, use, and disposal of hazardous materials would be temporary, occurring over approximately 36 months. All materials would be used, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions. Furthermore, any emissions from the use of such materials would be temporary in nature and localized to the project site.

Land uses that involve the routine transport, use, and disposal of hazardous materials include but are not limited to manufacturing plants, dry cleaning facilities, gas stations, agricultural properties, recycling centers, refineries, and shipyards. Once constructed, the proposed residential and commercial land uses would not involve activities that involve the routine transport, use, or disposal of hazardous materials. Any hazardous materials needed for ongoing maintenance and landscaping activities (e.g., solvents, paints, and pesticides) would be used, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions. Therefore, the project would not create a significant hazard to the public or the environment.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less than Significant. Refer to Section 3.9.2(a) above. Project-related construction and operation activities would involve the temporary use, transport, and disposal of hazardous materials. The project would be required to comply with federal, state, Sacramento County, and City of Rancho Cordova regulations relating to control of hazardous materials. Compliance with these regulations would reduce the likelihood of accidents and risks associated with

release of hazardous materials. Potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations.

As identified in the Phase I ESAs, no RECs were identified in connection with the project site. The environmental conditions described in Section 3.9.1 would not create a significant hazard to the public or the environment for the following reasons:

- Proposed development on APN 072-026-056 would be compatible with the land use restrictions recorded for the parcel.
- All buried inert waste, concrete, and other debris encountered during ground-disturbing activities would be removed and disposed of in accordance with applicable regulations.
- Groundwater contamination from offsite properties has potential to migrate to the Residences project site; however, this groundwater is not used for water supply and there is no exposure pathway to human receptors. It is not likely that groundwater would be encountered during construction activities because the depth to groundwater at the project site is expected to range from 50 to 100 feet bgs. Although over excavation of clay and silt soils may be required, the maximum depth of these soils identified in the Geotechnical Engineering Report (MPE 2020) is 21 feet bgs. If future remediation of contaminated groundwater is warranted, the property owners of the Former Purity Oil Sales/Delta Gunite Site and the Aerojet General Corporation Site would be responsible for remediation costs.
- Construction activities would be conducted in accordance with the 2021 Soil Management Plan, as required by the land use covenant, which includes procedures to be followed during site grading, excavation, stockpiling, soil sampling and laboratory analyses (if required), and backfilling activities associated with the handling of suspected or known contaminated soil (Wallace-Kuhl & Associates 2021).

Once operational, the proposed residential and commercial land uses would not involve activities that often give rise to concerns regarding hazardous materials. Therefore, the project would not create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. As discussed in Section 3.9.1, there are no existing or proposed schools within 0.25 mile of the project site. Therefore, the project would have no impact related to the emission or handling of hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than Significant. As discussed in Section 3.9.1, a portion of the Residences Project site (APN 072-026-056) is listed as a voluntary cleanup site on the DTSC EnviroStor database (DTSC 2022) and is subject to land use restrictions established in a 2010 Land Use Covenant. The proposed land uses that would be constructed on APN 072-026-056 would include the following: community swimming pool, community open space, community park/playground, community dog park, community parking, community clubhouse, and commercial development. These land uses are allowed under the Land Use Covenant for the parcel. All proposed residential uses would be located outside of the boundaries of the Land Use Covenant. In addition, all construction activities occurring on this parcel would be conducted in accordance with the 2021 Soil Management Plan and to the satisfaction of DTSC. Furthermore, all enclosed buildings intended for human occupation would be located outside the area where vapor intrusion may occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less than Significant. The project would result in the development of residential and commercial uses within the Airport Influence Area of Mather Airport. According to the Airport Land Use Compatibility Plan (SACOG 2020), the project site is partially within Safety Zone 6 (Airport Traffic Pattern Zone). Within Safety Zone 6, residential and commercial development are considered compatible land uses, and there are no limits on the density, intensity, or lot coverage for this type of development. Furthermore, the project site is outside of the 60 to 75+ decibel Community Noise Equivalent Level (CNEL) noise exposure range for Mather Airport. The acceptable level of aircraft noise for persons living in the vicinity of airports is a CNEL of 65 decibels. Because the project would be consistent with the Airport Land Use Compatibility Plan for Mather Airport, impacts related to safety hazards or excessive noise for people residing or working in the project area would be less than significant.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant. The SCMDP addresses planned response to extraordinary emergency situations associated with natural disasters and technological incidents. The SCMDP focuses on operational concepts relative to large-scale disasters, which can pose major threats to life and property requiring unusual emergency responses. The Residences Project would develop housing and commercial uses in a manner consistent with the existing zoning for the site and planned population growth for the region. There is no element of the project that would impair or physically interfere with implementation of the SCMPD (e.g., no alteration of project area roadways that could hinder emergency response or evacuation). Furthermore, as addressed in Section 3.17.2, the Sacramento Metropolitan Fire District (SMFD) would review the proposal to ensure traffic safety and adequate emergency access.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No Impact. As described in Section 3.9.1, the project site is within a non-VHFHSZ and is not in an area susceptible to wildland fires. The surrounding properties are fully developed. Vegetation associated with adjacent development consists of ornamental landscaping that is regularly irrigated and maintained and is not considered a fire hazard. Therefore, the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

3.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hydrology and Water Quality.				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial on- or offsite erosion or siltation;	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.10.1 Environmental Setting

According to the U.S. Geological Survey Watershed Boundary Dataset, the project site is in the American River Watershed and the Lower American River Subwatershed. The nearest surface water is the Folsom South Canal, located immediately east of the project site. Other nearby surface waters include the American River and Morrison Creek, approximately 2.5 miles north and 2.3 miles south of the project site, respectively.

The project site is within the Sacramento Valley Groundwater Basin, South American Subbasin (SASb). This subbasin has been designated by the California Department of Water Resources as high priority, but is not critically overdrafted.

Groundwater quality in the SASb is generally of good quality and meets local needs for municipal, domestic, and agricultural uses. Groundwater levels in the western portion of the SASb have been generally increasing since the

1980s despite a turn towards drier conditions and increasing population. The recent increase in groundwater levels has been largely attributed to a combination of conjunctive use projects (i.e., the combined use of groundwater and surface water sources), construction of the Freeport diversion facility and Vineyard surface water treatment plant, urban conservation plans, and changes in use of previous agricultural land. Groundwater levels in some areas of the eastern portion of the SASb, where the project site is located, show decreases in groundwater levels despite the lack of significant changes in land or water use. The causes of these declines are not well understood but may be attributed to the combination of remediation activities at the Inactive Rancho Cordova Test Site, Aerojet Superfund Site, and Kiefer Landfill and the aquifer becoming thin and low-yielding in this area. Areas of groundwater recharge to the subbasin include the American River to the north, the Sacramento River to the west, and the Cosumnes and Mokelumne Rivers to the south (South American Subbasin et al 2021).

The key finding of the Groundwater Sustainability Plan for the subbasin released in 2012 is that the basin will be sustainable over the next 20 years as long as planned recycled water, recharge and other projects are implemented. These projects are anticipated to raise groundwater above current levels; maintain storage volumes; and protect ecosystems, interconnected surface water, and shallow well users. Although projected climate change conditions will increase groundwater use, these effects are not expected to cause the SASb to become unsustainable or to cause notable decreasing trends in groundwater conditions (South American Subbasin et al 2021).

According to the Federal Emergency Management Agency, the Residences project site is within an area of minimal flood hazard (FEMA 2012). The project site is not within a tsunami hazard area (Cal OES 2021) and is not in proximity to an enclosed body of water that is susceptible to seiche.

3.10.2 Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than Significant. The Residences Project site is under the jurisdiction of the Central Valley RWQCB. The Central Valley RWQCB adopted the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) in 1975, and the most recent edition reflects amendments through May 2018. The purpose of the Basin Plan is to designate beneficial uses of waters within the Sacramento and San Joaquin River basins, establish water quality objectives to protect those beneficial uses, and implement a program needed to achieve those objectives. The Basin Plan establishes water quality standards for both surface and ground waters (Central Valley RWQCB 2018).

The City of Rancho Cordova, along with the cities of Citrus Heights, Folsom, and Galt, and the County of Sacramento, operate under a NPDES municipal separate storm sewer system (MS4) permit to discharge stormwater runoff from storm drains within their jurisdictions (NPDES No. CAS082597). The NPDES MS4 Permit establishes waste discharge requirements needed to attain water quality standards and protection of beneficial uses consistent with the Basin Plan. To comply with the NPDES MS4 Permit, the City imposes water quality and watershed protection measures for all new development projects. The Stormwater Quality Design Manual (SQDM) for the Sacramento Region (2018) includes guidance for the selection, siting, design, operation, and long-term maintenance of stormwater quality control measures implemented to meet the standards established in the NPDES MS4 Permit.

The Residences Project would include development of approximately 15.2 acres of new impervious cover, which is approximately 70 percent of the project site. According to the Preliminary Stormwater Quality Report, the project design would include stormwater planter facilities, disconnected roof drains (i.e., drains to pervious areas), and other treatment devices (Contech Stormfilters and Filterra units) to treat stormwater runoff from the project site (RSC Engineering, Inc. 2021a). The proposed stormwater infrastructure would fulfill the requirements of the SQDM for the Sacramento Region (2018), ensuring that project operations would not violate water quality standards or otherwise degrade water quality.

Construction activities that include ground disturbance, such as excavation, grading, and trenching increase the potential for degradation of water quality. All projects that result in a disturbance area of more than 1 acre (43,560 sq. ft.) are required to obtain coverage under the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). The Residences Project would involve the disturbance of 22.9 acres of soil; therefore, the project must comply with the provisions of the NPDES Construction General Permit issued by the Central Valley RWQCB. The project would require preparation of a SWPPP with BMPs to prevent stormwater contamination, control sedimentation, and erosion, and comply with stormwater discharge requirements. These requirements are consistent with the stormwater management and discharge control requirements outlined in Chapter 15.12 and the land grading and erosion control requirements outlined in Chapter 16.44 of the Rancho Cordova Municipal Code. Furthermore, the Residences Project would protect water quality through daily watering of unpaved areas to stabilize soil and prevent erosion during construction. Through compliance with the NPDES MS4 and Construction General Permits, the Residences Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant. Interference with groundwater recharge typically occurs with introduction of new impervious surfaces. The Residences Project would include development of approximately 15.2 acres of new impervious cover, which is approximately 70 percent of the project site. According to the Preliminary Stormwater Quality Report, the project design would include stormwater planter facilities, disconnected roof drains (i.e., drains to pervious areas), and other treatment devices (Contech Stormfilters and Filterra units) to treat stormwater runoff from the project site and allow it to percolate back into the soil (RSC Engineering, Inc. 2021a). The proposed stormwater infrastructure would fulfill the requirements of the SQDM for the Sacramento Region (2018). Therefore, the Residences Project would not interfere with groundwater recharge.

Groundwater levels in the eastern portion of the SASb, where the project site is located are affected by ongoing remediation of several large contaminant plumes. Refer to Section 3.10.2(e), below, for further discussion of sustainable management of the basin. Refer to Section 3.20, "Utilities and Services Systems," for discussion of groundwater demand associated with the project. Water would be provided by the local water purveyor, which manages a portfolio of water supplies.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial on- or offsite erosion or siltation;

Less than Significant. As discussed in Section 3.7.2(b), project-related construction activities that include ground disturbance, such as excavation, grading, and trenching would increase the potential for erosion to occur. The project would involve the disturbance of 22.9 acres of soil; therefore, the project must comply with the provisions of the NPDES Construction General Permit issued by the Central Valley RWQCB. The project would require preparation of a SWPPP with BMPs to control erosion. These requirements are consistent with the land grading and erosion control requirements outlined in Chapters 15.12 and 16.44 of the Rancho Cordova Municipal Code. Furthermore, the Project would comply with Sacramento Metropolitan AQMD (Fugitive Dust), which requires daily watering of unpaved areas to stabilize soil and prevent wind erosion events.

Once operational, the project site would be developed with approximately 15.2 acres impervious area, including buildings, asphalt parking lots, and concrete walkways. As described in the Preliminary Stormwater Quality Report, the project would be designed to meet the stormwater quality and LID requirements of the SQDM for the Sacramento Region (RSC Engineering, Inc. 2021a). Proposed stormwater features, which include stormwater planter facilities, underground stormwater treatment devices, and disconnected roof drain systems, would reduce erosion

potential from operational runoff. Furthermore, landscaping would reduce erosion potential in unpaved areas. With adherence to applicable rules and regulations and implementation of BMPs and LID practices, the project would result in a less than significant impact related to erosion and siltation.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

Less than Significant. As discussed in Section 3.10.2(b) above, the Residences Project would include development of approximately 15.2 acres of new impervious cover, which is approximately 70 percent of the project site. According to the Preliminary Stormwater Quality Report, the project design would include stormwater planter facilities, disconnected roof drains (i.e., drains to pervious areas), and other treatment devices (Contech Stormfilters and Filterra units) to treat stormwater runoff from the project site and allow it to percolate back into the soil (RSC Engineering, Inc. 2021a). The proposed stormwater infrastructure would fulfill the requirements of the SQDM for the Sacramento Region. Therefore, the Residences Project would not increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less than Significant. As discussed in Section 3.10.2(b) above, the Residences Project would include development of approximately 15.2 acres of new impervious cover, which is approximately 70 percent of the project site. According to the Preliminary Stormwater Quality Report, the project design would include stormwater planter facilities, disconnected roof drains (i.e., drains to pervious areas), and other treatment devices (Contech Stormfilters and Filterra units) to treat stormwater runoff from the project site and allow it to percolate back into the soil (RSC Engineering, Inc. 2021a). The proposed stormwater infrastructure would fulfill the requirements of the SQDM for the Sacramento Region. Therefore, the Residences Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

iv) Impede or redirect flood flows?

No Impact. As discussed in Section 3.10.1, the project site is within an area of minimal flood hazard (FEMA 2012). Therefore, the Residences Project would not result in impacts related to impeding or redirecting flood flows.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. As discussed in Section 3.10.1, the Residences project site is not within a flood hazard zone, a tsunami hazard area, or in proximity to an enclosed body of water that is susceptible to seiche (FEMA 2012; Cal OES 2021). Therefore, the Residences Project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant. The Residences Project would be designed to meet the stormwater quality and LID requirements of the SQDM for the Sacramento Region. In addition, BMPs would be implemented during construction activities to prevent stormwater contamination, control sedimentation, and erosion, and comply with stormwater discharge requirements. Because the Residences Project would comply with the requirements of the NPDES MS4 and Construction General Permits, the project would not conflict with or obstruct implementation of the Basin Plan.

As described above, the SASb has been designated by the California Department of Water Resources as high priority but is not critically overdrafted. The project site is not within or near the key areas of groundwater recharge to the subbasin (i.e., the American River, Sacramento River, and Cosumnes River). Further, the project would not conflict with

the projects identified in the Groundwater Sustainability Plan as important to raise groundwater above current levels; maintain storage volumes; and protect ecosystems, interconnected surface water, and shallow well users. Although projected climate change conditions will increase groundwater use, these effects are not expected to cause the SASb to become unsustainable or to cause notable decreasing trends in groundwater conditions.

Water supplied to the project would be sourced from a diverse water portfolio, including groundwater. As described in Section 3.20, "Utilities and Services Systems," the project is consistent with the population projections assumed in Golden State Water Company's water management planning. The Residences Project would not conflict with or obstruct implementation of a sustainable groundwater management plan.

3.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning.				
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

3.11.1 Environmental Setting

The project site is a vacant infill property in the City's Capital Center and is surrounded by residential uses, park facilities, and office and industrial uses. Specific uses include the San Juan Soccer Club complex to the north, industrial development (including Costco, office, laboratory, and automotive industries) east of the Folsom South Canal, single family development to the south, and medical office buildings to the west. The project site is designated as OMU in the City's General Plan Land Use Diagram and the zoning designation for the project site is OPMU.

3.11.2 Discussion

a) Physically divide an established community?

No Impact. As described in Section 3.11.1, the project site consists of a vacant infill property surrounded by residential uses, park facilities, and office and industrial uses. All project improvements would be contained within the existing privately-owned parcel. The project would be compatible with surrounding land uses and would not include physical features that would restrict access to neighboring communities. Therefore, the project would not physically divide an established community.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. As discussed in Section 3.11.1, the project site is designated for OMU land uses and is zoned OPMU. According to the City's General Plan Land Use Element, the OMU land use designation encourages the integration of commercial and/or residential use in conjunction with office use of a site (City of Rancho Cordova 2015). According to Chapter 23.313 of the Rancho Cordova Municipal Code, the OPMU zoning district is intended for the development of larger office buildings and business parks; however, commercial service and residential uses may be integrated into office buildings or as freestanding buildings. The Residences Project would consist of a modern mixed-use infill residential development with a destination commercial-retail component. The proposed multifamily units, townhome rental units, and commercial space would be an allowed use of the OPMU district.

In addition, as demonstrated through this environmental checklist, the project would be consistent with all applicable General Plan policies. See, for example, Section 3.4, "Biological Resources," Section 3.8, "Greenhouse Gas Emissions," and Section 3.17, "Transportation." In addition, the project would be conditioned to require compliance with the SSHCP, City and State water quality control standards, and would be reviewed by SMAQMD for consistency with the SIP. Because the project would be consistent with existing land use and zoning designations for the project site and all applicable policies from the City's General Plan, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources.				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

3.12.1 Environmental Setting

The California Surface Mining and Reclamation Act of 1975 requires the State Geologist to classify land into Mineral Resource Zones (MRZ) according to the known or inferred mineral potential of that land. Areas classified as MRZ-2 include areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence. The process is based solely on geology, without regard to existing land use or land ownership. The primary goal of mineral land classification is to ensure that the mineral resource potential of land is recognized by local government decision-makers and considered before land-use decisions that could preclude mining are made.

The site was extensively dredged for gold recovery sometime between 1947 and 1952. Large, floating dredges excavated river deposited sediments as they moved across the site in a north-south direction. Gravel and cobbles were screened off and deposited with sand in long ridges, and clays and silts were washed overboard and deposited in ponds between the ridges. The site was mined for aggregate from at least 1981 through at least 1984 (MPE 2020).

According to the City of Rancho Cordova General Plan EIR, the project site is within an area classified as MRZ-2 (City of Rancho Cordova 2006b). Based on mapping completed by the Division of Mines and Geology (now known as the California Geological Survey), the project site is within an area where Portland cement concrete-grade aggregate operations have occurred (Division of Mines and Geology 1999). However, the project site is currently vacant and no active mining operations occur on the project site.

3.12.2 Discussion

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less than Significant. As described in Section 3.12.1, mining has occurred on the site and recoverable deposits of gold and aggregate have been removed. The project site is zoned for office professional mixed-use land uses and is surrounded by urban development that precludes mineral resource extraction. Therefore, the project would not result in the loss of availability of a known mineral resource of regional value or of a locally important mineral resource recovery site delineated on a land use plan.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

See response in item (a) above.

3.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII.Noise.				
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.13.1 Environmental Setting

ACOUSTIC FUNDAMENTALS

Acoustics is the scientific study that evaluates perception, propagation, absorption, and reflection of sound waves. Sound is a mechanical form of radiant energy, transmitted by a pressure wave through a solid, liquid, or gaseous medium. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise. Noise is typically expressed in decibels (dB), which is a common measurement of sound energy. Definitions of acoustical terms used in this section are provided in Table 3.13-1.

Table 3.13-1 Acoustic Term Definitions

Term	Definition
Noise	Noise is generally defined as sound that is loud, disagreeable, unexpected, or unwanted.
Decibel (dB)	Sound levels are measured using the decibel scale, developed to relate to the range of human hearing. A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly summed. For example, a 65-dB source of sound, such as a truck, when joined by another 65-dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a 100-fold increase in acoustical energy.
A-weighted decibel (dBA)	The human ear is not equally sensitive to loudness at all frequencies in the audible spectrum. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed, identified as A through E. There is a strong correlation between the way humans perceive sound and A-weighted sound levels. For this reason, the A-weighted sound levels are used to predict community response to noise from the environment, including noise from transportation and stationary sources, and are expressed as A-weighted decibels. All sound levels discussed in this section are A-weighted decibels unless otherwise noted.

Term	Definition
Equivalent Noise Level (L_{eq})	The average noise level during a specified time period; that is, the equivalent steady-state noise level in a stated period of time that would contain the same acoustic energy as the time-varying noise level during the same period (i.e., average noise level).
Maximum Noise Level (L_{max})	The highest instantaneous noise level during a specified time period.

Source: Caltrans 2013a.

Noise Generation and Attenuation

Noise can be generated by many sources, including mobile sources such as automobiles, trucks, and airplanes and stationary sources such as activity at construction sites, machinery, and commercial and industrial operations. As sound travels through the atmosphere from the source to the receiver, noise levels attenuate (i.e., decrease) depending on ground absorption characteristics, atmospheric conditions, and the presence of physical barriers. Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates at a rate of 6 dB for each doubling of distance from a point source. Noise from a line source, such as a road or highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. Noise attenuation from ground absorption and reflective-wave canceling provides additional attenuation associated with geometric spreading. For acoustically absorptive sites such as soft dirt, grass, or scattered bushes and trees, additional ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the attenuation rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dB per doubling of distance.

Atmospheric conditions such as wind speed, wind direction, turbulence, temperature gradients, and humidity also alter the propagation of noise and affect levels at a receiver. Furthermore, the presence of a barrier (e.g., topographic feature, intervening building, and dense vegetation) between the source and the receptor can provide substantial attenuation of noise levels at the receiver. Natural (e.g., berms, hills, and dense vegetation) and human-made features (e.g., buildings and walls) may function as noise barriers.

To provide some context to noise levels described throughout this section, common sources of noise and associated noise levels are presented in Table 3.13-2.

Table 3.13-2 Typical Noise Levels

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet	100	
Gas lawnmower at 3 feet	90	
Diesel truck moving at 50 mph at 50 feet	80	Food blender at 3 feet, garbage disposal at 3 feet
Noisy urban area, gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet, normal speech at 3 feet
Commercial area, heavy traffic at 300 feet	60	
Quiet urban daytime	50	Large business office, dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library, bedroom at night, concert hall (background)
Quiet rural nighttime	20	Broadcast/recording studio
	10	
Threshold of human hearing	0	Threshold of human hearing

Notes: dB = A-weighted decibels; mph = miles per hour

Source: Caltrans 2013a.

Effects of Noise on Humans

Exposure to excessive noise may result in physical damage to the auditory system, which may lead to gradual or traumatic hearing loss. Gradual hearing loss is caused by sustained exposure to moderately high noise levels over a period of time; traumatic hearing loss is caused by sudden exposure to extremely high noise levels over a short period. Non-auditory behavioral effects of noise on humans are primarily subjective effects such as annoyance, nuisance, and dissatisfaction, which lead to interference with activities such as communications, sleep, and learning.

EXISTING NOISE SOURCES AND LEVELS

The predominant noise sources in the area are the San Juan Soccer Club, vehicular traffic along the surrounding roadways, and commercial truck traffic from the retail land uses nearby. The traffic noise levels along Kilgore Road, White Rock Road, and Sunrise Boulevard are 66 dBA, 72 dBA, and 76 dBA, respectively (Appendix E).

NOISE- AND VIBRATION-SENSITIVE LAND USES AND RECEPTORS

Noise- and vibration-sensitive land uses generally include those uses where noise exposure could result in health-related risks to individuals, places where a quiet setting is an essential element of the intended purpose (e.g., schools and libraries), and historic buildings that could sustain structural damage due to vibration. The project is in a sparsely populated area where land is generally undeveloped. Noise- and vibration-sensitive receptors in the vicinity of the project area include nearby residents and the Charter School of Morgan Hill. The closest sensitive receptor to the project area are the existing residences across International Drive, which are a minimum of 200 feet south of the project area.

AIRPORTS AND PRIVATE AIRSTRIPS

There are no public airports or private airstrips within the project vicinity. The nearest airport is the Mather Airport, which is located approximately 1.5 miles southwest of the project area.

REGULATORY SETTING

Federal Regulations

Federal Transit Administration

The Federal Transit Administration (FTA) provides guidance on evaluating human response to ground vibration. The FTA has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses where people live or work. These guidelines are presented in Table 3.13-3.

Table 3.13-3 Groundborne Vibration Impact Criteria for Human Response

Land Use Category	Ground-Borne Vibration Impact Levels for Human Response (VdB re 1 microinch/second)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations.	65[4]	65[4]	65[4]
Category 2: Residences and buildings where people normally sleep.	72	75	80
Category 3: Institutional land uses with primarily daytime uses.	75	78	83

Notes: VdB re 1 microinch/second = vibration decibels referenced to 1 microinch/second and based on the root mean square velocity amplitude.

[1] "Frequent Events" is defined as more than 70 vibration events of the same source per day.

[2] "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

[3] "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.

[4] This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define acceptable vibration levels.

Source: FTA 2018.

State Regulations

California Department of Transportation

In 2013, Caltrans published the Transportation and Construction Vibration Manual, which provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage (Caltrans 2013b). Table 3.13-4 presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

Table 3.13-4 Structural Damage Potential to Buildings at Various Groundborne Vibration Levels

Structure and Condition	Transient Sources PPV (in/sec)	Transient Sources PPV (in/sec)
Extremely Fragile Historic Buildings, Ruins, Ancient Monuments	0.12	0.08
Fragile Buildings	0.2	0.1
Historic and Some Old Buildings	0.5	0.25
Older Residential Structures	0.5	0.3
New Residential Structures	1.0	0.5
Modern Industrial/Commercial Buildings	2.0	0.5

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: Caltrans 2013b.

Local Regulations

Rancho Cordova General Plan

The General Plan Noise Element identifies noise criteria for various stationary and transportation noise sources. Performance standards for stationary noise sources and maximum allowable noise exposure from transportation noise sources, are included below in Tables 3.13-5 and 3.13-6, respectively.

Table 3.13-5 City of Rancho Cordova Performance Standards for Stationary Noise Sources

Source	Nosie Level Descriptor	Daytime (7 a.m. – 10 p.m.)	Nighttime (10 p.m. – 7 a.m.)
Typical	Hourly L_{eq} dB	55	45
Tonal, impulsive, repetitive, or consist primarily of speech or music	Hourly L_{eq} dB	50	40

Notes: dB = decibels; L_{eq} = energy-equivalent noise level.

Source: City of Rancho Cordova 2006a

Table 3.13-6 City of Rancho Cordova Maximum Transportation Noise Exposure

Land Use	Outdoor Activity Areas[1] Ldn/CNEL, dB	Ldn/CNEL, dB	Leq, dB[2]
Residential	60[3]	45	-
Residential subject to noise from railroad tracks, aircraft overflights, or similar noise sources which produce clearly identifiable, discrete noise events (e.g., the passing of a single train)	60[3]	40[5]	-
Transient lodging	60[4]	45	-
Hospitals, nursing homes	60[3]	45	-
Theaters, auditoriums, music halls	-	-	35
Churches, meeting halls	60[3]	-	40
Office Buildings	-	-	45
Schools, libraries, museums	-	-	45

Land Use	Outdoor Activity Areas[1] Ldn/CNEL, dB	Ldn/CNEL, dB	Leq, dB[2]
Playgrounds, neighborhood parks	70	-	-

Note: CNEL = community equivalent noise level; dB = decibels; Ldn= day-night average noise level; Leq = energy-equivalent noise level

[1] Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.

[2] As determined for a typical worst-case hour during periods of use.

[3] Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

[4] In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.

[5] The intent of this noise standard is to provide increased protection against sleep disturbance for residences located near railroad tracks.

Source: City of Rancho Cordova 2006a.

Rancho Cordova Noise Ordinance

The City Noise Ordinance establishes maximum allowable exterior and interior noise levels for affected land uses. The ordinance limits exterior noise levels (measured at residential land and agricultural land uses) to a maximum of 55 dBA during any cumulative 30-minute period during the daytime hours (7 a.m.–10 p.m.), and 50 dBA during any cumulative 30-minute period during the nighttime hours (10 p.m.–7 a.m.). Daytime construction activities are generally exempt from the noise standards.

3.13.2 Discussion

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

Less than significant. Project-related noise would be generated by heavy equipment used onsite during project construction and by increased vehicle trips associated with project operation. These types of noise sources are discussed separately below.

Construction

In the project area, the dominant noise source is roadway traffic, primarily from vehicles along White Rock Road and International Drive and events at the San Juan Soccer Club field. The project would result in temporary increase in noise levels during construction as a result of heavy equipment movement and pavement removal, but no permanent increases in ambient noise levels would occur during operation. Construction-related noise sources would include both mobile and stationary on-site equipment (e.g., dozers, loaders, generators). Construction noise would be short-term and temporary, and operation of heavy-duty construction equipment would be intermittent throughout the day during construction.

Within the City of Rancho Cordova, the City's Municipal Code Chapter 6.68 exempts certain activities, including construction, from the City's noise standards as long as the activities are limited to the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday; Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday and on each Sunday after the hour of 8:00 p.m. This exemption provides that construction equipment must include appropriately maintained exhaust and intake silencers. However, the City does not specify limits in terms of maximum noise levels that may occur during the allowable construction hours.

Project construction activities would involve the use of heavy equipment, such as graders, cranes, dozers, tractors, forklifts, generator sets, paving equipment, rollers, welders, mixers, and air compressors. However, the specific construction equipment used would vary depending on the project phase and specific activities occurring. The loudest

pieces of equipment that would be used during construction would be dozers, graders and tractors, all which generate noise levels ranging from 84 to 85 dBA L_{max} at 50 feet (FHWA 2006:3). Noise modeling conservatively assumed the simultaneous operation of the three loudest pieces of heavy construction equipment (i.e., a grader, a dozer, and a tractor) operating at the boundary of the project area (see Appendix E). At a distance of 140 feet to the nearest structure, construction related activities could result in hourly average noise levels of approximately 77 L_{eq} and 81 L_{max}.

There is noise generated by traffic on International Drive, which separates the southern boundary of the project site from the nearest sensitive receptors and an existing sound wall between those existing residences and International Drive. Construction activities would occur within the timeframe identified by the City's noise ordinance when construction noise is exempt from noise standards. Thus, the project would not generate a substantial temporary increase in ambient noise levels in excess of allowable standards in the vicinity of the project.

Operation

Traffic Noise

Project-generated vehicle trips would result in an increase in average daily traffic volumes and associated increases in traffic noise levels along affected roadway segments near the site. To analyze the impact of project-generated operational transportation noise sources, traffic noise levels under existing and existing-plus-project conditions were modeled for affected roadway segments. For further details on traffic volumes and conditions, see Section 3.16, "Transportation." Refer to Appendix E for detailed noise modeling input parameters.

Table 3.13-7 summarizes the modeled traffic noise levels at the nearest applicable offsite receptors from the roadway centerlines under existing and existing plus project conditions, along with the overall net change in noise level as a result of project-generated traffic. As shown in Table 3.13-7, the addition of project-generated traffic to the surrounding roadway network would not result in any of the roadway study segments experiencing noise increases above 3 dBA. Thus, the project would not result in a perceptible noise increase as a result of new vehicle trips generated from the project.

Table 3.13-7 Summary of Modeled Existing Plus Project Traffic Noise Levels

Roadway Segment	Segment Description	Existing Condition Noise Levels (L_{dn})	Existing plus Project Conditions (L_{dn})	Traffic Noise Level Increase
Zinfandel Dr	White Rock Rd to International Dr	72.9	72.9	0.0
Zinfandel Dr	US-50 EB Ramps to White Rock Rd	75.3	75.4	0.1
Zinfandel Dr	US-50 EB Ramps to US-50 WB Ramps	74.5	74.6	0.1
Zinfandel Dr	Folsom Blvd to US-50 WB Ramps	73.4	73.5	0.0
White Rock Rd	Zinfandel Dr to Kilgore Rd	71.8	72.1	0.3
White Rock Rd	Kilgore Rd to Sunrise Blvd	71.9	72.2	0.3
Kilgore Rd	Folsom Blvd to White Rock Rd	68.4	68.4	0.0
Kilgore Rd	White Rock Rd to International Dr	67.9	70.0	2.2
White Rock Rd	Sunrise Blvd to Grant Line Rd	68.9	69.1	0.2
Sunrise Blvd	White Rock Rd to Douglas Rd	76.3	76.3	0.0
Sunrise Blvd	Folsom Blvd to White Rock Rd	77.8	77.9	0.1
Sunrise Blvd	US-50 EB Ramps to Folsom Blvd	78.2	78.2	0.1
Sunrise Blvd	US-50 WB Ramps to US-50 EB Ramps	76.7	76.8	0.1
Sunrise Blvd	US-50 EB Ramps to Coloma	79.6	79.7	0.0

Notes: L_{dn} = Day-Night Level

All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow, and does not account for shielding of any type or finite roadway adjustments. All noise levels are reported as A-weighted noise levels. For additional details, refer to Appendix E for detailed traffic data, and traffic-noise modeling input data and output results.

Source: Data modeled by Ascent Environmental in 2022.

Stationary Noise

The loudest operational noise from non-transportation sources is often generated by onsite mechanical equipment such as HVAC equipment. Noise levels generated from HVAC equipment vary substantially depending on unit efficiency, size, and location. Generally, HVAC equipment generates noise levels of 60 dBA at six meters (19.6 feet). The specific location of the HVAC equipment relative to adjacent sensitive receptors are not known at this time. HVAC equipment at the project site could exceed the City's nighttime L_{eq} standard (Table 3.13-5) if located within 75 feet of noise-sensitive land uses during nighttime hours (10 p.m. to 7 a.m.) occurring for more than 30 minutes. The nearest sensitive receptor is 200 feet south of the site. Noise levels generated from HVAC equipment at the nearest noise-sensitive land use would be 34 dBA at 200 feet and below the City's stationary noise standard. As a result, operation of the HVAC equipment would not exceed the City's threshold for stationary noise sources.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than significant. Project construction would not involve the use of ground vibration–intensive activities, such as pile driving or blasting. Pieces of equipment that generate lower levels of ground vibration, such as dozers and pavers, would be used during construction. These types of common construction equipment do not generate substantial levels of ground vibration that could result in structural damage, except at extremely close distances (i.e., within at least 10 feet). The most ground vibration–intensive activity performed during project construction would be use of a roller. Rollers generate a ground vibration level of 0.21 in/sec PPV and 94 VdB at 25 feet (FTA 2018:184). Vibration from rolling could exceed the threshold of significance of 0.2 in/sec PPV for building structural damage within 26 feet of activities and the threshold of significance for human annoyance of 80 VdB within 73 feet of activities. No sensitive land uses or permanent structures are located within 140 feet of areas where construction activity would take place at the site. No rolling would occur within 26 feet of an existing building or within 73 feet of a residence. Operation of the project would not include any substantial vibration sources. Therefore, construction and operational generated vibration would not result in structural damage or human annoyance.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not located within the 60 dB CNEL contour for Mather Airport (SACOG 2021), and as such, on-site residences would not be exposed to airport-related noise in excess of City standards.

3.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Population and Housing. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Environmental Setting

According to the U.S. Census Bureau, the 2020 population in the City of Rancho Cordova was 79,332 residents. Based on the 2015–2019 American Community Survey, there were approximately 25,508 households and the average household size was 2.85 residents (U.S. Census Bureau 2021).

According to the City's General Plan Land Use Element, approximately 60 percent of the existing housing is single-family and the remaining 40 percent is predominately multi-family. To meet housing demands, the Land Use Element identifies the need for a more diverse, higher-density housing supply, including townhomes, condominiums, and mixed-use housing above ground floor retail or office spaces (City of Rancho Cordova 2015). According to the Housing Element, the 2014–2018 American Community Survey vacancy rate in the City of Rancho Cordova was 0.6 percent for homeownership and 3.9 percent for rental housing, which is considered low to very low (City of Rancho Cordova 2021a).

3.14.2 Discussion

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant. The Residences Project would result in the construction of 417 residential units, comprised of 240 multifamily units and 177 townhome rental units. Based on the City's average household size of 2.85 residents, the project would have a residential population of approximately 1,043 residents. These residents could include people relocating from other cities in the region or from within the City of Rancho Cordova itself.

The project site is a vacant infill property within an area planned for development. As discussed in Section 3.11, "Land Use," residential development in conjunction with office uses is consistent with the land use and zoning designation for the project site. Although the Residences Project could contribute to population growth in the City of Rancho Cordova, the project is intended to provide diverse rental housing opportunities to meet current and future housing demand. Because the City has low to very low vacancy rates and identified the need for a more diverse housing supply, the Residences Project is anticipated to be growth-accommodating rather than growth-inducing. Therefore, the Residences Project would not induce substantial unplanned population growth.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project site is currently vacant and does not contain existing housing units. Therefore, the project would not displace people or housing, necessitating the construction of replacement housing elsewhere.

3.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services.				
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

3.15.1 Environmental Setting

SMFD provides fire protection services, fire suppression, inspection, plan checking, emergency transportation and medical services, public education, advanced life support, and rescue services to the City of Rancho Cordova. According to SMFD's Community Annual Report for the 2019-2020 fiscal year, the fire district served a population of approximately 757,000 residents over an area of 359 square miles. SMFD operated 41 stations and employed approximately 552 fire, medical, and rescue personnel in the 2019-2020 fiscal year. According to the City's General Plan EIR, SMFD established a goal for a response time of 5 minutes or less for 80 percent of the time in the urbanized portions of the city (City of Rancho Cordova 2006b). Response times for the 2019-2020 fiscal year averaged 4 minutes and 28 seconds for structure fires and 6 minutes and 8 seconds for medical aid (SMFD 2020). SMFD Station 66 is the closest fire protection facility, located immediately west of the project site at 3180 Kilgore Road.

Police protection services within the City of Rancho Cordova are provided by the City of Rancho Cordova Police Department (RCPD), which is contracted through the Sacramento County Sheriff's Department Patrol Services. RCPD employs 55 officers to enforce State statutes and City codes and ordinances (RCPD n.d.). According to the City's General Plan EIR, RCPD established a goal of providing one police officer for every 1,000 citizens and of achieving a response time of 5 minutes or less for Priority One calls (i.e., calls for violent crimes or emergencies requiring an immediate response to save a life) (City of Rancho Cordova 2006b). The Rancho Cordova Police Station is located at 2897 Kilgore Road, approximately 0.7 mile north of the project site.

The project site is within the boundaries of the Folsom Cordova Unified School District (FCUSD). FCUSD enrolls approximately 20,800 students at 22 elementary schools, 4 middle schools, 3 high schools, 6 alternative schools, and 1 charter school (FCUSD n.d.). The enrollment capacity for City of Rancho Cordova schools is 9,972 students and the enrollment capacity for the overall district is 21,527 students (FCUSD 2021). The Residences Project would be within the attendance boundaries of the FCUSD schools listed in Table 3.15-1.

Table 3.15-1 Public School Facilities Serving the Residences Project Site

Name	Address	Distance to Project Site	2018-2019, 2019-2020 Student Enrollment[1]	2013 Student Capacity[2]
Navigator Elementary School	10679 Bear Hollow Dr, Rancho Cordova, CA 95670	1.1 miles southwest of the project site	374	558
W.E. Mitchell Middle School	2100 Zinfandel Dr, Rancho Cordova, CA 95670	1.6 miles north of the project site	885	843
Cordova High School	2239 Chase Dr, Rancho Cordova, CA 95670	2.1 miles northwest of the project site	1,855	1,951

[1] Student enrollment data is based on the 2018-2019 and 2019-2020 school years and was obtained from U.S. News & World Report in 2022

[2] Student capacity data is based on the district optimal capacity from the FCUSD 2013 Facilities Master Plan, Appendix B, "Facility Inventory"

Source: Compiled by Ascent Environmental in 2022

The Cordova Recreation and Park District (CRPD) provides and maintains public recreation facilities and services within the City of Rancho Cordova. CRPD operates over 600 acres of open space and over 43 parks and recreational facilities, which include neighborhood and community parks, a community barn, a dog park, a sports complex, community pools, community centers, and a golf course (CRPD 2022). CRPD parks and recreational facilities within 1 mile of the Residences project site are summarized in Table 3.15-2.

Table 3.15-2 Public Parks and Recreational Facilities in Proximity to the Residences Project Site

Name	Address	Distance to Project Site	Amenities
Renaissance Park	3125 Mowbray Way, Rancho Cordova, CA	0.4 mile southwest of the project site	Neighborhood park with picnic pavilion, playground, half-court basketball court, and open grass area
Tuscany Park	3460 Corvina Dr, Rancho Cordova, CA	0.4 mile south of the project site	5-acre park with a playground, basketball court, soccer field, picnic areas, and open green space
The Village Green	3141 Bridgeway Dr, Rancho Cordova, CA	0.5 mile west of the project site	Park with large outdoor amphitheater, splash pad plaza, open grass area, and picnic areas
Cobblestone Park	10900 Barden Dr, Rancho Cordova, CA 95670	0.6 mile southwest of the project site	1.6-acre neighborhood park with shade trees, an open grass area, picnic areas, a playground, a fitness station, and a multiuse field
Stone Creek Community Park	3625 Spoto Drive, Rancho Cordova, CA	0.9 mile southwest of the project site	21 acres of open space and recreational amenities, which include an open-air amphitheater, aquatic splash park, skate park, playgrounds, picnic areas, and athletic fields

Source: Information obtained from the CRPD and compiled by Ascent Environmental in 2022

Other public facilities in proximity to the project site include the Rancho Cordova Library, which is part of the Sacramento Public Library System. The Rancho Cordova Library is located at 9845 Folsom Boulevard in the City of Sacramento, approximately 3.2 miles west of the project site.

3.15.2 Discussion

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

Less than Significant. The Residences Project would not result in the need for new or expanded fire protection facilities because the Residences project site is within a developed area and would be served by the SMFD. As discussed in Section 3.14, "Population and Housing," the Residences Project is anticipated to have a residential population of approximately 1,043 residents. In addition, the Residences Project would add new commercial-retail development that could accommodate some additional visitors to the project site at any given time. This increase in population would increase the demand for SMFD services, which could adversely affect SMFD service ratios and response times.

Plans for proposed development projects are subject to review and approval by the City's Development Services Team, which is made up of multiple City departments and partner agencies, including the SMFD. The project design would be required to comply with the most current building and fire codes, which include requirements for hydrant spacing, fire flow, access and roadway requirements, and limitations on materials used. Compliance with these requirements would reduce fire-related hazards associated with the proposed development.

Furthermore, new construction and development projects served by the SMFD are required to pay a Capital Fire Facilities Fee. This fee is intended to finance capital improvements for fire protection and emergency medical services that are needed to accommodate a growing service population. The project proponent would be required to pay a Capital Fire Facilities Fee as a condition of project approval, which would offset any impacts to SMFD service ratios, response times, or performance objectives.

The City's General Plan provides policies for ensuring adequate fire protection in accordance with projected growth and development. The population growth from the Residences Project would be consistent with the type of growth anticipated in the City's General Plan. Therefore, the Residences Project could be served by existing fire protection facilities and new facilities proposed under the City's General Plan. Based on the discussion above, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection and emergency services facilities.

Police protection?

Less than Significant. The Residences Project would not result in the need for new or expanded fire protection facilities because the project site is within a developed area and would be served by the RCPD. As discussed in Section 3.14, "Population and Housing," the Residences Project is anticipated to have a residential population of approximately 1,043 residents. In addition, the Residences Project would add new commercial-retail development that could accommodate up to some additional visitors to the project site at any given time. This increase in population would increase the demand for RCPD services, which could adversely affect RCPD service ratios and response times.

Plans for proposed development projects are subject to review and approval by the City's Development Services Team, which is made up of multiple City departments and partner agencies. The City would coordinate with RCPD during the review of the Residences Project development plan. In addition, the City encourages the incorporation of Crime Prevention Through Environmental Design principles in the design and siting of new buildings. Incorporation of these design principles would reduce crime and improve security within the proposed development.

Furthermore, new construction and development projects served by the RCPD are required to pay a development impact fee. This fee is intended to finance capital improvements for law enforcement related services that are needed to accommodate a growing service population. The project proponent would be required to pay this fee as a condition of project approval, which would offset any impacts to RCPD service ratios, response times, or performance objectives.

The City's General Plan provides policies for ensuring adequate police protection in accordance with projected growth and development. Population growth from the Residences Project would be consistent with the type of growth anticipated in the City's General Plan. Therefore, the Residences Project could be served by existing police protection facilities and new facilities proposed under the City's General Plan. Based on the discussion above, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities.

Schools?

Less than Significant. The Residences project site is within the district boundaries of FCUSD. Based on student yield factors from the FCUSD Facility Master Plan (2013), the Residences Project would generate approximately 162 students. This increase in the student population would increase student enrollment at FCUSD schools, which could cause enrollment to reach or exceed capacity or adversely affect student to teacher ratios.

Table 3.15-1 Student Yield Rates for the Residences Project

School Type	Number of Students		
	177 Single-Family Attached Units	240 Multi-Family Units	All Units
Elementary School (K-5)	57 (0.32/unit)	27 (0.11/unit)	84
Middle School (6-8)	18 (0.10/unit)	20 (0.08/unit)	38
High School (9-12)	25 (0.14/unit)	8 (0.03/unit)	33
Special Education	4 (0.02/unit)	3 (0.01/unit)	7
Total	**104**	**58**	**162**

Source: FCUSD 2013; Page E-2

Government Code Section 65995 and 65996 require payment of development impact fees to offset the overcrowding of schools from new elementary, middle, and high school students generated from the project. The project proponent would be required to pay this fee as a condition of project approval, which would offset any impacts to FCUSD enrollment.

The City's General Plan provides policies for ensuring adequate school facilities in accordance with projected growth and development. Student population growth from the Residences Project would be consistent with the type of growth anticipated in the City's General Plan. Therefore, the Residences Project could be served by existing schools and new schools proposed under the City's General Plan. Based on the discussion above, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities.

Parks?

Less than Significant. As discussed in Section 3.14, "Population and Housing," the Residences Project is anticipated to result in a population of approximately 1,043 residents. This increase in population would increase the use of existing CRPD parks and open spaces.

According to the City's General Plan, the City requires all new residential development to dedicate 1.75 acres of open space land and 5 acres of parkland per 1,000 population. The City reviews proposals for new residential development to ensure compliance with the City's minimum open space and parkland standards. As described in Section 2, "Project Description," the Residences Project would provide recreational amenities for residents, including a central green space; pedestrian pathways and paseos; two clubhouses, each with a pool and fitness center; dog parks; a children's playground; and barbeque and lounge areas. These recreational amenities are intended to meet City

requirements for open space and parkland. Furthermore, the City may require payment of development impact fees to fund CRPD park improvements to offset the increased use of parks from new residential development. Because the Residences Project would be subject to City requirements for minimum open space and parkland standards, the Residences Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered public park facilities.

Other public facilities?

Less than Significant. The Residences Project does not propose new or expanded public facilities because the Residences project site is within a developed area and would be served by existing City facilities, such as the Rancho Cordova Library. The anticipated population of approximately 1,043 residents would increase the use of existing public facilities, such as libraries, in the City. The Residences Project would be subject to development impact fees to fund public facilities improvements to offset their increased use from new residential development. Therefore, the Residences Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered public facilities.

3.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Recreation.				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

3.16.1 Environmental Setting

Section 3.15.1 includes a summary of the existing public parks and recreational facilities within 1 mile of the project site.

3.16.2 Discussion

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less than Significant. As discussed in Section 3.15.2(a), the Residences Project is anticipated to have a residential population of approximately 1,043 residents that could increase the use of existing parks and recreational facilities. According to the City's General Plan, the City requires all new residential development to dedicate 1.75 acres of open space land and 5 acres of parkland per 1,000 population. The City reviews proposals for new residential development to ensure compliance with the City's minimum open space and parkland standards. As described in Section 2, "Project Description," the Residences Project would provide recreational amenities for residents, including a central green space; pedestrian pathways and paseos; two clubhouses, each with a pool and fitness center; dog parks; a children's playground; and barbeque and lounge areas. These recreational amenities are intended to meet City requirements for open space and parkland. Furthermore, the City may require payment of development impact fees to fund CRPD park improvements to offset the increased use of parks from new residential development. Because the Residences Project would be subject to City requirements for minimum open space and parkland standards, the Residences Project would not cause substantial physical deterioration of existing parks or recreational facilities to occur or be accelerated.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Less than Significant. As described in Section 3.16.2(a), the Residences Project would provide recreational amenities for residents. The environmental impacts associated with construction of these recreational amenities are evaluated in Sections 3.1 through 3.21 of this Initial Study and no significant adverse physical effects were identified.

3.17 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Transportation.				
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

3.17.1 Environmental Setting

The transportation impact analysis presented in this section is based primarily on the *Residences at Capital Center Transportation Impact Study* (TIS) prepared by Kimley Horn (2022). The TIS, which is included as Appendix F, provides additional data and information related to the transportation analysis.

ROADWAY NETWORK

Access to the Residences Project site is provided by the surrounding roadway network which includes highway United States Route (U.S. 50), Sunrise Boulevard, Zinfandel Drive, and White Rock Road.

Highways

The following highway is operated and maintained by Caltrans and provides regional access to the Residences Project site:

- **U.S. 50** is an east-west freeway that traverses the United States from Sacramento, California to Ocean City, Maryland. In the vicinity of the Residences Project, U.S. 50 connects the City of Rancho Cordova with the City of Sacramento to the west and the County of El Dorado to the east. Located approximately three quarters of a mile north of the Residences Project site, U.S. 50 can be accessed via the Sunrise Boulevard and Zinfandel Drive interchanges. U.S. 50 has five lanes in each direction within the vicinity of the Residences Project site.

Roadways

The primary roadways in the vicinity of the Residences Project site include:

- **Sunrise Boulevard** is a bidirectional six-lane arterial roadway east of the Residences Project site connecting to north Rancho Cordova and Placer County while providing access to U.S. 50. The speed limit on Sunrise Boulevard is 45 miles per hour (mph).
- **Zinfandel Drive** is a bidirectional six to eight-lane arterial roadway that serves travel in the north-south directions connecting the Residences Project site to U.S. 50 via White Rock Road. The speed limit is 40 mph.

- White Rock Road is a six-lane east-west arterial roadway. White Rock Road connects Sunrise Boulevard and Zinfandel Drive within the southern half of City's jurisdictional limits. White Rock Road is located north of the Residences Project site. There are no bicycle facilities present on White Rock Road between Zinfandel Drive and Sunrise Boulevard; however, pedestrian facilities exist along the roadway.
- Kilgore Road is a bidirectional, four-lane roadway with no median accommodating north-south travel. Kilgore Road is located along the west boundary of the Residences Project site and has a posted speed limit of 40 mph. Primary vehicle access to the Residences Project would be provided from Kilgore Road. Class II bike lanes and pedestrian facilities are present on each side of Kilgore Road.
- International Drive, located south of the Residences Project site, is an east-west bidirectional six-lane roadway. Emergency vehicle access would be provided to International Drive. Class II bike lanes and pedestrian facilities are located along each side of International Drive.
- Crawford Drive is an existing bidirectional, two-lane private roadway located just north of the existing commercial building. Crawford Drive would provide access to the multi-family residential portion of the Residences Project.

BICYCLE AND PEDESTRIAN FACILITIES

The bicycle network in the City is composed of pathways, bike lanes, and bike routes. These bicycle facilities are classified in the Bicycle Master Plan as follows:

- Class I Pathways are off street facilities dedicated exclusively to use by bicyclists, pedestrians, and in some cases, equestrians, and other non-motorized travel such as roller skating and skateboarding.
- Class II Bike Lanes delineate a portion of the street for bicyclists.
- Class III Bike Routes are routes where the travel lane is shared by drivers and bicyclists. Class III routes are generally designated on roadways with low levels of motor vehicle traffic where bicycles may share the travel lane.

As of 2016, the City had 235 total miles of roadways and 17 miles of on-street bikeways and 14 miles of off-street paths (City of Rancho Cordova 2016:2-3). In the vicinity of the Residences Project site, Class II bike lanes exist on Kilgore Road and International Drive. Pedestrian facilities exist on Kilgore Road, International Drive, White Rock Road, and Zinfandel Drive. Sunrise Boulevard has pedestrian facilities present on the west side of the roadway between the U.S. 50 eastbound and westbound ramps. The Folsom South Canal bike path, a 15.5-mile Class I bicycle facility, is located east of the Residences Project site.

TRANSIT SYSTEM

Sacramento Regional Transit (SacRT) provides transit services in the Sacramento region. SacRT operates over 80 bus routes, 43 miles of light rail, and provides paratransit services for individuals who are American with Disabilities Act certified.

Bus routes 175, 176, and 177, also known as CordoVan, operate in the vicinity of the Residences Project site. Bus route 175 operates between the hours of approximately 6:30 a.m. and 7:00 p.m., Monday through Friday with one-hour headways. Bus route 176 operates between the hours of approximately 5:30 a.m. and 7:30 p.m., Monday through Friday with one-hour headways. Bus route 177 operates between the hours of 6:00 a.m. and 7:00 p.m., Monday through Friday with 15-minute headways. Bus routes 175, 176, and 177 do not provide service on Saturday or Sunday.

Bus routes 175, 176, and 177 connect riders originating south of U.S. 50 near the Zinfandel Drive exit with the Zinfandel light-rail station. The Zinfandel light-rail station is served by the SacRT light rail Gold Line which provides service to both Sacramento and Folsom in either direction, and is approximately 1.5 miles north of the Residences Project site. The Sunrise Station and Cordova Town Center Station are both 1.6 miles north of the Residences Project site.

REGULATORY SETTING

Senate Bill 743

SB 743, passed in 2013, required OPR to develop new State CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

In December of 2018, OPR published the most recent version of the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory) which provides guidance for VMT analysis. The Office of Administrative Law approved the updated State CEQA Guidelines and lead agencies had an opt-in period until July 1, 2020 to implement the updated guidelines as they related to VMT. As of July 1, 2020, implementation of Section 15064.3 of the updated CEQA Guidelines is required statewide.

The OPR Technical Advisory states that lead agencies may screen out VMT using project size, maps, transit availability, and provision of affordable housing. Many agencies use these screening thresholds to identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study. These screening thresholds are identified below:

- *Small Project* – Projects that generate or attract fewer than 110 trips per day generally may be assumed to result in a less-than-significant transportation impact.
- *Map-Based Screening for Residential and Office Projects* – Residential and office projects located in areas with low VMT, and that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT. Maps created with VMT data, for example from a travel survey or a travel demand model, can illustrate areas that are currently below threshold VMT. Because new development in such locations would likely result in a similar level of VMT, such maps can be used to screen out residential and office projects from needing to prepare a detailed VMT analysis.
- *Presumption of Less Than Significant Impact Near Transit Stations* – Lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor will have a less-than-significant impact on VMT.
- *Presumption of Less Than Significant Impact for Affordable Residential Development* – Adding affordable housing to infill locations generally improves jobs-housing match in turn shortening commutes and reducing VMT. Further, low-wage workers in particular would be more likely to choose a residential location close to their workplace if one is available. In areas where existing jobs-housing match is closer to optimal, low-income housing nevertheless generates less VMT than market-rate housing. Therefore, a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less-than-significant impact on VMT.

City of Rancho Cordova Transportation Impact Guidelines

The City developed and adopted the Transportation Impact Guidelines following the passage of SB 743, which shifted the evaluation of transportation impacts from LOS to VMT. The Transportation Impact Guidelines describe the CEQA analysis for transportation impacts that shall be used in the City including the following screening criteria applicable to the Residences Project which describes project-types that can be presumed to cause a less-than-significant impact pertaining to VMT:

- Residential Located in a VMT Efficient Area: The project is a residential project located in a VMT "efficient area" (in an area with 15% or more below the base year regional average household VMT/capita) based on location-based screening maps prepared by the City using the focused version of SACOG's SACSIM19 regional model.
- Office/Business Professional Employment Project Located in a VMT Efficient Area: The project is an office/business-professional project located in a VMT "efficient area" (15% or more below the base year city-wide

average VMT/employee) based on the location-based screening maps prepared by the City using its focused version of SACOG's SACSIM19 regional model.

- Proximity to Transit: A residential, retail, and office/business professional projects, as well as projects that are a mix of these uses, that are located within ½ mile of an existing or planned major transit stop (or along a high-quality transit corridor).
- Small Project: The project is a small project defined as generating less than 237 daily unadjusted trips ends using the latest ITE trip generation rates/procedures or a project-specific trip generation analysis reviewed and accepted by the City.
- Local-Serving Retail Project: A retail (or recreational) project is local-serving if it is consistent with the land uses listed in Appendix A and has a gross floor area no more than the following:
  - 125,000 sq. ft., if located within the City's Infill Area
  - 200,000 sq. ft., if located within the City's Growth Area A retail project may also be defined as local-serving if a market study demonstrates that it is based on the size of its market area. Adding retail square footage (even if it is less than the gross floor area listed above) to an existing "regional" retail shopping area is not screened out. Hotels and motels are not considered local serving retail.
- Affordable Housing: The project is affordable based on the City's criteria for affordable housing. Only the portion of the project that meets the City's criteria is screened out. For example, if the project is 100 units with 10 affordable housing units, transportation VMT analysis would not be necessary for the 10 affordable units but would be necessary for the remaining 90 units (unless they meet one of the other screening criteria). For purposes of applying the small project screening criteria, the applicant would only include the trip generation for the nonaffordable housing portion of the project (since the affordable housing portion is screened out).
- Mixed Use Project Screening Considerations: The project's individual land uses should be compared to the screening criteria above. It is possible for some of the mixed-use project's land uses to be screened out and some to require further analysis. For purposes of applying the small project screening criteria, the applicant would only include the trip generation for portions of the project that are not screened out based on other screening criteria. For example, if a project includes residential and retail, and the retail component was screened out because it is locally serving; only the trip generation of the residential portion would be used to determine if the project meets the definition of a small project (City of Rancho Cordova 2020:Table 1).

City of Rancho Cordova General Plan

The Circulation Element, updated in 2015, provides goals, policies, and actions regarding the City's transportation network. The policies and actions within the General Plan relevant to the Residences Project are provided below:

- Policy C.2.1: Create a system of on- and off-street trails and multi-use paths, as generally illustrated on Figure C-2, that are used for walking and bicycling and that are attractive, natural, and safe transportation corridors.
- Policy C.2.2: Require bicycle and pedestrian connections to public transit systems at stops, stations, and terminals; carpool/vanpool park-and-ride lots; and activity centers (e.g., schools, community centers, medical facilities, senior residences, parks, employment centers, high-density residential areas, commercial centers).
- Policy C.2.3: In designing development projects, design for the pedestrian first.
  - Action C.2.3.1: Require pedestrian circulation routes to be designed into all land plans and subdivisions to ensure that access for the pedestrian is provided. Pedestrian routes shall be interconnected and may include open spaces, parks, and trails as otherwise required by the City.
  - Action C.2.3.2: Require and site pedestrian crossings of major roads at key intersections and at locations that provide priority and efficiency to the pedestrian, even at the expense of improved vehicular circulation.
  - Action C.2.3.3: Ensure safe, efficient pedestrian connections are made between the sidewalk, parking areas, and entrances to stores, offices, and other uses as part of development design review.

- Policy C.2.8: Promote bicycling and walking as a safe and attractive activity. Educate all road users to share the road and interact safely.
  - Action C.2.8.5: Provide signage, alternative routes, etc. during construction activities affecting bikeways to ensure the safety of cyclists.
- Policy C.3.3: Promote the integration of transit facilities into new development.
  - Action C.3.3.1: Require new development and redevelopment to include public transit stations, especially light rail stations, and to promote pedestrian activity and connection between public transit and retail, office, and residential uses.
  - Action C.3.3.2: Consistent with the Transit section of the Circulation Plan and the Transit Master Plan, require development to dedicate the necessary right-of-way needed to accommodate planned transit services.

City of Rancho Cordova Bicycle Master Plan

The Bicycle Master Plan presents existing conditions, proposes infrastructural and programmatic improvements, and recommends funding mechanisms to increase bicycle safety and use in the City. The following policies are relevant to the Residences Project:

- Policy 1.1: Ensure all bicycle facilities, including grade separated crossings, meet the City of Rancho Cordova's design and construction standards.
- Policy 2.2: All development projects shall be reviewed by City staff for consistency with the goals, policies and actions of the Bicycle Master Plan.
- Policy 2.2: Where construction is adjacent to Class II or Class III bikeways, require the developer or contractor to maintain a clear and clean travelway for cyclists.
- Policy 2.4: Ensure bicycle trail projects minimize environmental impacts, to the extent feasible.
- Policy 3.2: All development projects shall include bicycle support facilities, to the extent feasible.
- Policy 3.3: Bicycle parking shall be provided at all major employment and retail sites.
- Policy 3.3: Encourage all employers to offer showers and changing facilities.
- Policy 7.2: Encourage development projects that make bicycling a convenient and desirable form of transportation by providing a mix of land uses in close proximity to one another, and safe bicycle network connections and support facilities (City of Rancho Cordova 2016:A-2).

3.17.2 Discussion

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less than significant.

Bicycle and Pedestrian Facilities

The Residences Project would provide green space and pedestrian pathways throughout the project site connecting bicyclists and pedestrians with the Class I Folsom South Canal bike path to the east of the project site. Additionally, the Residences Project would provide off-site improvements on Kilgore Road to accommodate a pedestrian crosswalk providing access to a future pathway which would lead to Capital Village that include employment and retail uses. As required by Municipal Code Section 23.719.110 (Bicycle Parking Requirements), the Residences Project would provide bicycle parking stalls for short term use in the commercial area and secure bicycle parking stalls in the residential portion for long-term tenant use, satisfying City Bicycle Master Plan Policy 3.3. The Residences Project does not involve any additional bicycle facility improvements; however, the project would enhance the environment for pedestrians and bicyclists in the vicinity of the project and facilitate connections between visitors, residents, and

the regional bicycle network. The Residences project would construct a mix of residential and retail uses within the project site aligning with City Bicycle Master Plan Policy 7.2, which encourages the use of active transportation by locating different land uses within close proximity of one another and providing safe connections for people walking and bicycling in the area. Therefore, the Residences Project would not conflict with any programs, plans, ordinances, or policies addressing pedestrian and bicycle facilities.

Transit Service

The Residences Project is located approximately 1.6 miles from the nearest Gold Line light rail transit station along Folsom Boulevard. From the Residences Project site, visitors and residents would have access to the Gold Line light rail service via CordoVan bus routes 175 and 176 operated by SacRT. The Residences Project would encourage transit use in the area due to it being mixed-use, infill development. The Residences Project would promote pedestrian activity and connection between commercial and residential uses as described in General Plan Action C.3.3.2 and comply with the policies regarding transit service. Additionally, the Residences Project would not reconstruct or reconfigure the surrounding roadway network including the alteration of any existing transit stops. Therefore, the Residences Project would not conflict with any programs, plans, ordinances, or policies addressing transit service or facilities.

Summary

The Residences Project would provide an enhanced environment for pedestrians by including open space and pathways within its internal circulation design. The pathways would integrate with the existing bicycle network including the Class I Folsom South Canal bike path to the east of the Residences Project site. Additionally, the Residences Project would provide supporting bicycle facilities such as bicycle parking in the commercial area to comply with municipal code requirements and Bicycle Master Plan policies. The Residences Project would not conflict with transit facilities and all nearby bus stops would remain as is. For these reasons, the Residences Project would not conflict with the programs, plans, policies, or ordinances addressing the circulation system.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

Less than Significant. As described below, construction of the Residences Project is not expected to substantially increase regional VMT. In addition, the City has determined that the project satisfies two of the screening criteria in the City's Transportation Impact Guidelines, indicating that the project would result in less-than-significant operational VMT impacts.

Construction

The VMT of construction workers is not newly generated; instead, it is redistributed throughout the regional roadway network based on the different work sites to which workers travel to each day. Therefore, construction workers are not generating new VMT each day, only redistributing it. Additionally, even if the trips generated during construction were considered to be new trips, construction workers are expected to generate an average of 99 trips per day, assuming that construction workers would not carpool and would generate two trips per worker per day. Therefore, the number of daily construction trips generated would be fewer than the City's Transportation Impact Guidelines screening threshold for small projects (i.e., 237 trips per day) and OPR's Technical Advisory threshold of 110 daily trips. Further, Residences Project construction activities would be temporary and intermittent in nature occurring over 3 years; and thus, would not result in long-term increases in vehicular trips. Therefore, construction activities are not expected to substantially increase VMT in the region.

Operation

As presented above, the City's Transportation Impact Guidelines describe project-types that can be presumed to cause a less than significant VMT impact. The City has determined that the Residences Project satisfies two of the screening criteria; it would be located in a VMT-efficient area and is in proximity to transit. As detailed above, the Residences Project site would be served by CordoVan bus routes 175, 176, and 177. Bus route 177 operates on weekdays with 15-minute headways providing direct access to the Gold Line light rail service at Zinfandel Station. The City's Transportation Impact Guidelines screen projects within 0.5 mile of an existing or planned major transit stop or

an existing stop along a high-quality transit corridor. A high-quality transit corridor is defined as "a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours" (City of Rancho Cordova 2020:8). The nearest Route 177 bus stop is located at the intersection of International Drive and Prospect Park Drive approximately 0.4 miles west of the Residences Project site's proposed southern access point along International Drive. Moreover, an analysis performed in 2020 using location-based screening maps prepared by the City determined that the project site is in a residential area with less than significant VMT impact based on proximity to transit and VMT per capita less than 85 percent of the regional average (Lum, pers. comm. 2022).

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than Significant. As described below, construction and operations of the Residences Project would be required to follow all local regulations related to design and safety. The Residences Project design is subject to plan review and an encroachment and traffic control permit is required for all off-site improvements. Additionally, the TIS found that the Residences Project would result in minimal turn movement and ingress/egress conflicts at the project's access points.

Construction

Construction activities are anticipated to occur over a 3-year period beginning in August of 2022. The Residences Project applicant is required to obtain an encroachment permit for any construction activity within roadway right of way (City of Rancho Cordova Municipal Code Section 12.08.020) including off-site improvements, such as the proposed pedestrian crosswalk on Kilgore Road. The encroachment permit requires the submittal of a traffic control permit for review and approval by the City Public Works Department for any work requiring modification of existing traffic patterns. The traffic control permit would demonstrate appropriate traffic handling during construction activities for all work that will or may impact the traveling public and mandates that pedestrian and bicycle access must be maintained at all times (City of Rancho Cordova 2010). Therefore, the Residences Project would not substantially increase hazards during construction.

Operation

The Residences Project would include a 240-unit multi-family development, 177-units of townhomes, and a commercial-retail component with open space and pathways provided throughout the project site. Internal circulation for vehicles, bicyclists, and pedestrians would be required to follow the City's Design Guidelines: *Provisions for a Quality Community*. Additionally, the Residences Project would follow site design standards set forth in the City Municipal Code including those in Section 23.707.040 pertaining to pedestrian access and open space, Section 23.719.090 regarding parking design standards, and Section 23.722.050 related to on-site pedestrian pathway standards. Vehicular access would be provided via two separate gated entrances from side streets off of Kilgore Road. As identified by the TIS, minimal turn movement/access conflicts are anticipated for the analysis scenarios as both entrances are set back from Kilgore Road. Access to the Residences Project commercial component would be provided via a dedicated driveway on the northern edge of the site connecting directly to Kilgore Road. The Residences Project would provide adequate site distance at all access points. Additionally, the Residences Project plans are subject to review by the City Building & Safety Division and Public Works Department ensuring City standards including those pertaining to site accessibility and safety are met. Therefore, the Residences Project would not substantially increase hazards during operations.

d) Result in inadequate emergency access?

Less than Significant. The project site is in an urban area with an established roadway network. The surrounding roadways provide adequate circulation and access for emergency response. Project-related construction activities have the potential to result in short-term, temporary impacts to surrounding roadways from partial lane closures or the presence of construction vehicles, which may cause temporary traffic slowdown. Any impacts associated with construction activities would be temporary in nature and would be generally confined to the project site. Furthermore, construction activities would not affect access on any major roadways that may serve as emergency evacuation routes for the region, such as U.S. 50. All construction activities would be subject to emergency access standards and requirements of SMFD to ensure traffic safety. Chapter 33 of the 2019 California Fire Code contains

applicable standards for fire safety during construction and demolition including required provisions for emergency access. As detailed in item c, the Residences Project is required to obtain an encroachment permit and submit a traffic control plan for work within public right of way which would demonstrate safe traffic handling during construction including maintaining adequate emergency access. Additionally, emergency access would be subject to review by the City and responsible emergency service agencies; thus, ensuring the project would be designed to meet all applicable emergency access and design standards.

The final site plan for the project would also be subject to approval by the SMFD. Three emergency vehicle access points are provided for the residential components of the Residences Project including access to International Drive and Crawford Drive. The Residences Project design is required to follow the standards and regulations set forth in the 2019 California Building Standards Code, Title 24, California Code of Regulations, Part 9 (2019 California Fire Code) as adopted by the City (City of Rancho Cordova Municipal Code Chapter 17.04). Appendix D of the 2019 California Fire Code provides minimum dimensions and design standards for fire apparatus roads in order to maintain adequate emergency access during operations of commercial and residential developments. For these reasons, the Residences Project would not result in inadequate emergency access.

3.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources.				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?		☒ Yes		☐ No
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

3.18.1 Environmental Setting

AB 52, signed by Governor Edmund G. Brown, Jr., in September 2014, established a new class of resources under CEQA: "tribal cultural resources." AB 52, as provided in Public Resource Code Sections 21080.3.1, 21080.3.2, and 21082.3, requires that lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation once the lead agency determines that the application for the project is complete, prior to the issuance of a NOP of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration.

The NAHC was contacted to request a Sacred Lands File search for known cultural resources within or near the project site. The results of the search returned by the NAHC on December 28, 2021 were positive for Native American cultural resources in the project vicinity. The NAHC provided contact information for tribal members and organizations affiliated with the region, and recommended that they be contacted for more information on the potential for Native American cultural resources within or near the project area. The following tribes were contacted on February 1, 2022, for consultation under AB 52:

- United Auburn Indian Community of the Auburn Rancheria
- Ione Band of Miwok Indians
- Wilton Rancheria

Wilton Rancheria replied on February 15, 2022. Coordination with the tribe indicated no knowledge of tribal cultural resources that may be affected by the project, however, because the NAHC Sacred Lands File search was positive, Wilton Rancheria did request mitigation measures, discussed below. No other tribe responded and, therefore, no tribal cultural resources have been identified in the project area.

3.18.2 Discussion

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a,b) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than significant with Mitigation Incorporated. Although consultation under AB 52 did not result in the identification of tribal cultural resources as defined by PRC Section 21074, the NAHC Sacred Lands File search was positive. Therefore, the possibility exists that tribal cultural resources could be encountered during construction-related ground disturbing activities. This impact is potentially significant.

Mitigation Measure 3.18-1: Retain a Native American Tribal Monitor

The Applicant shall contact Wilton Rancheria at least 30 days prior to ground disturbance to retain a Native American Tribal monitor. The Tribal monitor shall be approved by the Wilton Rancheria and listed under the NAHC's Tribal Contact list for the Project area. A minimum of seven days prior to ground disturbance, the Applicant shall notify Wilton Rancheria of the impending groundwork. Construction activities shall proceed if no response is received within 48 hours.

The Tribal monitor shall only be present onsite during the construction phases that involve ground disturbing activities. The Tribal monitor shall complete daily monitoring logs that describe each day's activities, including construction activities, locations, soil, and any cultural materials identified. The onsite monitoring shall end when the grading and excavation activities are completed, or when the Tribal representatives and monitor have indicated that the site has a low potential for impacting tribal cultural resources. The Applicant shall compensate the Tribal monitor for services.

Mitigation Measure 3.18-2: Protection of Known and Unknown Archaeological Resources

Implement Mitigation Measure 3.5-1 above.

Significance after Mitigation

Implementation of Mitigation Measures 3.18-1 and 3.18-2 would reduce impacts to tribal cultural resources to a less-than-significant level by requiring the retention of a tribal monitor and, in the case of a discovery, appropriate treatment (including options for data recovery, mapping, capping, or avoidance) and proper care of significant tribal cultural resources.

3.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems.				
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

3.19.1 Environmental Setting

The project site is an infill property surrounded by urban development and is already within the service areas of providers for water, wastewater, electricity, solid waste, and telecommunications. Existing utility lines for water, sewer, electricity and gas, and telecommunications, and are located in a joint trench within the roadway right-of-way adjacent to the project site.

WATER

Th project site is within the approximately 12-square-mile Cordova Service Area of the Golden State Water Company (GSWC). GSWC adopted the Cordova Service Area 2020 Urban Water Management Plan (2020 UWMP) in 2021. The UWMP assumes that development and redevelopment of the existing service area will occur as incremental infill in existing commercial areas along major thoroughfares. Growth is based on the growth rates established in SACOG's 2020 MTP/SCS.

GSWC Cordova's water supply portfolio consists of pre-1914 appropriative right from the South Fork of the American River established by the Natoma Water Company in 1851; groundwater supplies from the South American Subbasin of the Sacramento Valley Groundwater Basin; Aerojet GET Settlement Agreement remediated water supply, treated by Carmichael Water District (CWD); and contingent replacement Aerojet supplies. Active management of this diverse

water portfolio and implementation of the water shortage contingency plan provide GSWC Cordova with stable and reliable water service to meet its current and 2045 projected water demands in normal, single dry, and five consecutive dry year scenarios.

In 2020, the agency's public water supply served a total of 14,759 connections (GSWC 2021: 1-2) for a population of approximately 44,050 people. In 2020, the water demand for the service area was 14,206 acre-feet (AF) (GSWC 2021: 4-1). In 2025 and 2045, the projected water demand for normal (non-drought conditions) is estimated to be 13,605 acre-feet per year (AFY) and 15,032 AFY, respectively (GSWC 2021: 4-6), for population estimates of 45,162, and 49,900. The UWMP determined that the agency would have sufficient water supply to meet projected demand for the service area through 2045, even in the event of multiple dry year conditions (GSWC 2021: 5-1).

WASTEWATER

Wastewater conveyance is provided by SASD, which manages and maintains the region's sewer systems. Wastewater collected in SASD's system is processed at the SRWTP, which is managed by Regional San located at 8521 Laguna Station Road in the City of Elk Grove. The network of pipelines comprising the sewer system collection pipelines are categorized based on their size, function, and flow capacity.

- Collectors generally receive flow directly from individual homes and businesses, are generally 6-8 inches in diameter, designed to carry less than 1 million of gallons per day (mgd) wastewater flow.
- Trunk sewers collect flows from collectors and are generally 12-36 inches in diameter, have a flow capacity between one and 10 mgd.
- Interceptors are between 36 and 144 inches in diameter and have a flow capacity of 10 mgd or greater.

DRY UTILITIES

The Sacramento Municipal Utility District would provide electricity and Pacific Gas and Electric would provide natural gas. AT&T would provide telecommunications services.

SOLID WASTE

Republic Services, Inc. would provide solid waste collection services to the project site, and Waste Management (WM) manages local recovery stations and landfills. The Kiefer Road Landfill is classified as a major landfill, which is defined as a facility that receives more than 50,000 tons of solid waste per year and is the only facility in Sacramento County that accepts solid waste from the public (City of Rancho Cordova 2021b: 4-180). Kiefer landfill currently has 117 million cubic yard (58 million tons) total capacity and is divided into 11 modules (City of Rancho Cordova 2021b: 4-180. To date, Kiefer has placed approximately 40 million cubic yards of waste into Modules 1-3, leaving 77 million cubic yards (38 million tons) of available capacity. The maximum tons per day (tpd) allowed at the Kiefer Road Landfill is 10,815 tpd, with an average intake of 6,362 tpd. Currently, the Kiefer Road Landfill is operating below permitted capacity and would have capacity for the next 30 to 40 years based on current disposal rates (City of Rancho Cordova 2021b). Chapters 6.20, "Solid Waste Requirements," 6.21, "Business and Multifamily Recycling and Organics Recycling" describe City requirements related to the provision of solid waste disposal services including collection and transport, waste diversion, and container requirements for commercial, single family residential, and multifamily residential waste generators. The California Integrated Waste Management Act of 1989 (AB 939) required a diversion of a minimum of 50 percent of discarded materials away from disposal in landfills.

3.19.2 Discussion

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant. The project would result in the construction of 417 housing units, consisting of 240 multifamily units and 177 townhome units, supporting community facility uses, and 5,000 sq. ft. of commercial space in a vacant parcel surrounded by existing urban development. The residential land use on the vacant project site would result in demand for water, wastewater, electricity, and telecommunications facilities. Connections to main lines for water, sewage, telecommunications, and electricity exist in the right-of-way of the roadways adjacent to the project site. For example, an existing water main is located along Kilgore Road, adjacent to the west side of the project site.

Utility infrastructure improvements to the site would consist of placing pipe connections from the project site to the existing water main, sanitary sewer interceptors, and existing storm drainage features. Other improvements would include the connection of fire hydrants and related water connections, manholes to access utility lines, and water meters. The effects of constructing on-site utility connections and stormwater drainage are included in the analysis of other ground-disturbing construction activities associated with development of the project. Impacts pertaining to grading, soils, and stormwater are addressed in Section 3.7, "Geology and Soils," and 3.10, "Hydrology and Water Quality."

As discussed in items b) through c) below, the capacity of off-site infrastructure for utilities including water supply, sewage treatment plant capacity, and landfill capacity supporting the project site would be sufficient to accommodate the project. Impacts pertaining to energy are discussed in Section 3.6, "Energy"- the construction of new or expanded energy production facilities would not be required. New capacity for utility services including water, wastewater, electricity and gas, and solid waste disposal would not be required and, therefore, the construction of new, off-site utility infrastructure that could result in significant environmental effects would not be required.

b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than Significant. As described above, GSWC Cordova's 2020 Urban Water Management Plan (UWMP) assumed infill development and population growth based on SACOG population projections. The Residences Project is the type of development anticipated in the plan and represents approximately 18 percent of the population growth assumed in the UWMP between 2020 and 2045.

The 2020 UWMP identified the following average Unit Demand Factors based on the 2016 to 2020 period: 3.46 AFY for multifamily connections and 3.50 AFY for commercial/industrial connections demand (GSWC 2021: 4-5). The project would construct 177 single-family townhomes and 240 multi-family apartment units with an estimated 29 total connections and a commercial component for which two connections are assumed. The estimated annual water demand would be 107.34 AFY. The water demand from the Residences Project would be approximately 13 percent of the increase in water demand anticipated during normal years between 2020 and 2045.

The 2020 UWMP estimated that, in the event of multiple-year drought conditions, the supplier would have reliable water supplies for the service area through 2045 for a projected population of 49,900. Due to conjunctive management and a Water Shortage Contingency Plan, the 2020 UWMP projects adequate supply to meet demand in all water years through 2045.

The proposed project is consistent with the type of infill development assumed in GSWC Cordova's 2020 UWMP. Normal water year demand is assumed in increase by 826 AFY (from 14,206 to 15, 032 AFY) between 2020 and 2045. Based on the historic demand per connection factors used in the UWMP, the project would require 107.34 AFY of water. This is accounted for in the projected increase in water demand evaluated in the UWMP, which concludes that there is sufficient supply to serve anticipated development through 2045. Therefore, while the project would result in

additional demand for water, existing water supplies are estimated to be sufficient to serve the project site, even within the event of multiple dry-year conditions.

c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?

Less than Significant. The project is located within the service area of SASD, which manages the sewer system and serves much of Sacramento County, including the City of Rancho Cordova. Wastewater treatment services are provided by the SRWTP. An upgrade of the SRWTP is currently under way. The upgrade, known as the EchoWater Project, must be built by 2023 to meet new water quality requirements that were issued by the Central Valley RWQCB as part of Regional San's 2010 NPDES permit. The requirements are designed primarily to help protect the Delta ecosystem downstream by removing most of the ammonia and nitrates and improving the removal of pathogens from wastewater discharge. The upgrade will include deployment of new treatment technologies and facilities, and will increase the quality of effluent discharged into the Sacramento River and ensure that the SRWTP discharge constituents are below permitted discharge limits specified in the NPDES permit. Flows to the SRWTP have decreased as a result of water conservation efforts over the last 10 years. Further, adequate capacity for wastewater is anticipated well into the future. Flows in 2014 were approximately 141 million gallons per day (mgd), compared to the current permitted capacity of 181 mgd. It is not anticipated that Regional San will need to consider further improvements to the SRWTP until after 2050. The SRWTP has a permitted dry weather flow design capacity of 181 mgd (Rancho Cordova 2006b: 4.12-38).

Wastewater would be conveyed off the project site using a network of collectors (up to 1 mgd flow capacity) and trunk sewers (1-10 mgd flow capacity). These sanitary sewer lines would then connect to the district's sewer system by connecting to an existing interceptor line located along Kilgore Road that is 72 inches in diameter (RSC Engineering, 2021b), which has a flow capacity of greater than 10 mgd.

The project would construct 417 housing units and 5,000 sq.ft. (or 0.1149 acres) of commercial space. The City's 2006 general plan identified that a single-family dwelling generated approximately 310 gallons per day of wastewater flows, called Equivalent Single-Family Dwellings, and that commercial development generated approximately 6 Equivalent Single-Family Dwelling worth of wastewater flows per acre. Using these factors, the project is estimated to generate approximately 129,500 gallons per day, which is equivalent to 0.13 mgd.

The project would collect the 0.13 mgd generated wastewater from each connection through the series of collectors and trunk sewer lines, which would flow into the existing interceptor along Kilgore Road with a flow capacity of greater than 10 mgd. The wastewater generated by the project would be 0.01 percent of a 10 mgd flow capacity. Therefore, existing utility infrastructure, including the interceptor sewer line on Kilgore Road and the SRWTP would have sufficient capacity to accommodate the wastewater flows that the project is estimated to generate.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant. Municipal waste services to the project site are provided by WM and Republic Services, Inc. Municipal and commercial waste generated at the site would be disposed of at the Kiefer Road Landfill. The project would generate household and commercial solid waste, including organic waste and recyclable material.

CalRecycle determined that the average disposal rate, after waste diversion efforts occur in compliance with state regulations, was 4.2 pounds per person per day (CalRecycle 2021). The project is estimated to add an additional population of 1,126 people which would produce 4,729 lbs/day or 2.4 tons per day (tpd). Since the number of employees resulting from the proposed commercial spaces are not yet determined, a per area generation rate is used. CalRecycle (2019) provides a generation rate of 5 pounds (lbs)/1000 sq.ft./day for commercial land uses. Per this estimate, 5,000 sq.ft. of commercial space would generate approximately 25 lbs/day. The total solid waste produced from the project would be approximately 4,750 lbs/day, or approximately 2.4 tons/day. The Keifer Landfill receives approximately 6,300 tpd, and is permitted to accept up to 10,800 tpd (City of Rancho Cordova 2019: 3.14-20) and is

expected to accept waste until 2064. The project would not generate waste in excess of local standards or in excess of the capacity of local infrastructure and would not impair the attainment of the City's per capita waste reduction goals.

e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant. Municipal solid waste services to the project site are provided by WM and Republic Services, Inc. Municipal and commercial waste generated at the site would be disposed of at the Kiefer Road Landfill. The project's residential and commercial land uses would be provided with trash, recycling, and organics disposal services in accordance with local, state, and federal regulations. The project would, therefore, comply with regulations including the City's ordinances and AB 939. The Project would not fail to comply with federal, state, and local management and reduction regulations related to solid waste.

3.20 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Wildfire.				
Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones?				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	☐ Yes			☒ No
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

3.20.1 Environmental Setting

According to the California Department of Forestry and Fire Protection, the project site is within a non-VHFHSZ in a local responsibility area (CAL FIRE 2008). The project site is not in an area susceptible to wildland fires and the surrounding properties are fully developed. Vegetation associated with adjacent development consists of ornamental landscaping that is regularly irrigated and maintained and is not considered a fire hazard. The topography of the project site is generally flat and there are no steep slopes within or adjacent to the project site.

As discussed in Section 3.9.1, the City adopted the SCMDP to address planned response to emergency situations. Major roadways, such as U.S. 50, may serve as emergency evacuation routes for the region.

3.20.2 Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, no impact would occur. As discussed in Section 3.9.3(f), the project site is in an urban area with an established roadway network. The surrounding roadways provide adequate circulation and access for emergency response. Project-related construction activities have the potential to result in short-term, temporary impacts to surrounding roadways from partial lane closures or the presence of construction vehicles, which may cause temporary traffic slowdown. Any impacts associated with construction activities would be temporary in nature

and would be generally confined to the project site. Furthermore, construction activities would not affect access on any major roadways that may serve as emergency evacuation routes for the region, such as U.S. 50. All construction activities would be subject to emergency access standards and requirements of SMFD to ensure traffic safety.

The project would not permanently modify any roads, result in permanent road closures, or otherwise affect emergency response times. Therefore, the project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. As discussed in Section 3.10.1, the project site is not in an area susceptible to wildland fires and the surrounding properties are fully developed. Vegetation associated with adjacent development consists of ornamental landscaping that is regularly irrigated and maintained and is not considered a fire hazard. The topography of the project site is generally flat and there are no steep slopes within or adjacent to the project site. Because the Residences project site does not contain features that would exacerbate wildfire risks, and the project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones, the project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The Residences Project would involve the construction of residential and commercial land uses in a developed and urban area. No roads, fuel breaks, emergency water sources, or new power lines are proposed. The project design would be required to comply with the most current building and fire codes, which include requirements for hydrant spacing, fire flow, access and roadway requirements, and limitations on materials used. Compliance with these requirements would reduce fire-related hazards associated with the proposed development. The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones and would not exacerbate fire risk or result in temporary or ongoing impacts to the environment.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, no impact would occur. As discussed in Section 3.7.2(a)(iv), the potential for landslides to occur is negligible because the topography is generally flat and there are no steep slopes within or adjacent to the project site. In addition, as discussed in Section 3.10.1, the Residences project site is within an area of minimal flood hazard (FEMA 2012). The Residences Project would change the drainage patterns of the project site by increasing impervious surfaces; however, the proposed development would be designed to meet the stormwater quality requirements of the SQDM for the Sacramento Region to prevent drainage, flooding, and erosion impacts from site runoff (see Section 3.10.2[c] for additional information). Therefore, the Residences Project would not expose people or structures to significant risks from runoff, post-fire slope instability, or drainage changes.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Mandatory Findings of Significance.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.21.1 Environmental Setting

The environmental setting for this section is presented above in the environmental settings for each of the checklist issue areas. No additional environmental setting is necessary.

3.21.2 Discussion

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation Incorporated. Based on evaluations and discussions contained in Sections 3.1 through 3.20 of this Initial Study, the Residences Project is not anticipated to substantially degrade the quality of the environment. As discussed in Section 3.4, "Biological Resources," the Residences Project would implement the SSHCP through Mitigation Measure 3.4-1. Therefore, the Residences Project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. In addition, as discussed in Section 3.5, "Cultural Resources," and Section 3.7, "Geology and Soils," no historical,

archaeological, or paleontological resources were identified on the Residences Project site. Although unlikely, ground-disturbing activities during project construction may result in the unanticipated discovery of archaeological or paleontological resources; however, the City requires that specific procedures be followed in the event of unanticipated discoveries (refer to Sections 3.5 and 3.7 for additional information) as a condition of project approval. Therefore, the project would not eliminate important examples of the major periods of California history or prehistory.

b) Does the project have impacts that are individually limited, but cumulatively considerable?

Less than Significant with Mitigation Incorporated. The Residences Project would not result in significant cumulatively considerable impacts for the following reasons:

- The Residences Project would not contribute to the cumulative condition for agricultural and forest resources, biological resources, cultural and tribal cultural resources, and mineral resources due to the lack of Important Farmland and forest land, known mineral resources, known historic and archaeological resources, and sensitive species or habitat at the project site.
- Impacts related to geology, soils, hazards and hazardous materials are generally site-specific and would not contribute to the cumulative condition.
- The project would be consistent with existing land use and zoning designations for the project site, the City's Municipal Code and ordinances, and the City's Design Guidelines. In addition, population growth from the Residences Project would be consistent with the type of growth anticipated in the City's General Plan. Therefore, the Residences Project would not contribute to the cumulative condition for aesthetics, land use and planning, population and housing, public services, recreation, and wildfire.
- The Residences Project would increase impervious surfaces and change drainage patterns within the watershed; however, the Residences Project would not contribute to the cumulative condition for hydrology and water quality because the proposed development would be designed to meet the stormwater quality requirements of the SQDM for the Sacramento Region.
- With respect to air quality, energy, noise, transportation, and utilities, the project would be a infill development in a VMT-efficient area that is consistent with the existing land use designation and the population assumptions for the area. GHG emissions impacts, which are inherently cumulative, would be reduced to less than significant with mitigation.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant with Mitigation Incorporated. The project's potential effects on the way residents experience the existing environment (aesthetics) and plans for future use of the area (land use and population and housing) would be less than significant. Elements of the project that could physically affect sensitive populations, including air quality impacts and generation of noise, were also found less than significant. GHG emissions, which are understood to result in global warming, would be reduced to a less-than-significant level with the implementation of mitigation.

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Appendix A

Architectural Exhibits

Appendix B

Aquatic Resources Assessment

Appendix C

South Sacramento Habitat Conservation Plan Avoidance and Minimization Measures

Appendix D

Air Quality, Greenhouse Gas, and Energy Modeling

Appendix E

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Appendix F

Traffic Impact Study

Appendix B

Aquatic Resources Assessment

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22 October 2021

Darcy Goulart
Planning Manager
City of Rancho Cordova
Planning Division
2729 Prospect Park Dr.
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Subject: Aquatic Resources Assessment for the Capital Center Project, City of Rancho Cordova, Sacramento County, California

Dear Ms. Goulart:

This letter presents the results of an aquatic resources assessment of the Capital Center Project site (Study Area) performed by Madrone Ecological Consulting, LLC (Madrone) at the request of GGC HWY 50 LLC. The approximately 25-acre Study Area is located generally northeast of the intersection of Kilgore Road and International Drive in the City of Rancho Cordova, Sacramento County, California (38.586954, -121.268263). The Study Area consists of APNs 072-0260-053, 072-0260-054, 072-0260-056, 072-0260-051, 072-0680-065, and 070-0680-068.

Methodology

Madrone senior biologist Dustin Brown conducted an aerial photograph review and preformed a visit the site to on 14 October 2021 to determine if aquatic resources were present within the Study Area.

The assessment was performed in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b), and the Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetlands Delineations* (USACE 2016b). U.S. Army Corps of Engineers (USACE) regulations (33 CFR 328) were used to determine the presence of Waters of the United States other than wetlands. The most recent *National Wetland Plant List*, which went into effect on 18 May 2020, was used to determine the wetland indicator status of plants observed in the Study Area (USACE 2020). The *Jepson eFlora* (Jepson Flora Project 2020) was used for plant nomenclature, except where

it conflicted with the nomenclature in the *National Wetland Plant List*, which was given priority.

During the 14 October 2021 site visit Mr. Brown walked the entire Study Area to determine the presence or absence of aquatic resources. During the survey Mr. Brown also noted the soils and vegetation present.

Results

The U.S. Army Corps of Engineers makes legal determinations regarding the presence or absence of wetlands or waters of the U.S. on any given property. However, in our professional opinion, aquatic resources are not present within the Study Area. The Study Area consists of gently rolling terrain. Soils onsite are cobbly loam and appear to be very well drained. Vegetation onsite consists upland non-native annual grasses and forbs associated with fallow and previously disturbed areas such as wild oat (*Avena fatua*), tarplant (*Holocarpha virgata*), soft brome (*Bromus hordeacious*), yellow star thistle (*Centaurea solstitalis*), and bull thistle (*Cirsium vulgare*). No evidence of ponding or saturated soils were observed within the Study Area.

Please contact me with any questions about this survey at (916) 822-3230 or svonderohe@madroneeco.com.

Sincerely,

Sarah VonderOhe

Sarah VonderOhe
Senior Biologist/Principal

cc: Dan Cole/Cole Partners
Rob Cole/Cole Partners
Richard Weng/Cole Partners
Jeremy White/The Grupe Company

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Appendix C

South Sacramento Habitat Conservation Plan Avoidance and Minimization Measures

5.4.1 General Avoidance and Minimization Measures

General AMMs are designed to avoid or minimize effects of Covered Activities on SSHCP land cover types and Covered Species.

Condition 1. Avoid and Minimize Urban Development Impacts to Watershed Hydrology and Water Quality

National Pollution Discharge Elimination System permits are issued by the Regional Water Quality Control Board to jurisdictions in the region, including the jurisdictions that are also SSHCP Land Use Authority Permittees (i.e., County of Sacramento, and Cities of Rancho

[16] In a situation like this, the Local Land Use Authority Permittee will suspend one or more local permits (e.g., grading permit, building permit) until compliance with terms of all SSHCP requirements is demonstrated.

[17] Post-construction monitoring by the Land Use Authority Permittee could continue for several years.

Cordova and Galt). The National Pollution Discharge Elimination System permit is issued to each of the Land Use Authority Permittees every 5 years, and is referred to as the Municipal Separate Storm Sewer System (MS4) permit. MS4 permits contain specific design measures required for all projects constructed within the region. The Stormwater Quality Design Manual for the Sacramento and South Placer Regions (Stormwater Manual) outlines planning tools and requirements to reduce urban runoff from new development and redevelopment projects within the region (Sacramento Stormwater Quality Partnership 2007). The Stormwater Manual is used as a general guidance document to aid with the selection, siting, design, operation, and long-term maintenance of stormwater quality control measures. The Stormwater Manual contains control measures intended to meet the standard of "reducing pollutants in urban runoff to the maximum extent practicable" set forth in the local agencies' MS4 permits issued by the Central Valley Regional Water Quality Control Board. AMM LID-1 (see below) is designed to ensure compliance with MS4 requirements by requiring Third-Party Project Proponents to minimize increases of peak discharge of stormwater and to eliminate or reduce runoff of pollutants.

Development Covered Activities may adversely alter watershed hydrology and degrade water quality, which, in turn, could diminish or eliminate the conservation benefits provided by the SSHCP Preserve System. Condition 1 is designed to conserve and/or rehabilitate on-site natural creeks and streams. This condition will require the provision of BMPs and low-impact development (LID) drainage control measures to ensure that runoff from developed lands will closely mimic the pre-development hydrograph and retain most pre-development hydrologic functions. Condition 1 will accomplish the hydrograph and hydrologic objectives through application of the listed AMMs to all UDA Covered Activities that occur at the parcel, subdivision, or master plan scale.

LID-1 (Stormwater Quality): When the size of a Covered Activity project exceeds the thresholds established by the State Water Resources Control Board (SWRCB) (see the most recent Stormwater Quality Design Manual for the Sacramento and South Placer Regions, or future SWRCB-approved design manuals applicable to the Plan Area), incorporate stormwater management into site design to satisfy the requirements outlined in the most recent Stormwater Quality Design Manual for the Sacramento and South Placer Regions. Stormwater management may include groundwater recharge (LID-2) and natural site features (LID-3).

LID-2 (Groundwater Recharge): When siting SSHCP Preserves containing Riparian, Open Water, or Freshwater Marsh SSHCP land cover types, the Implementing Entity will prioritize locations that are suitable for groundwater recharge.

LID-3 (Natural Site Features): Incorporate preservation of a site's natural aquatic features (such as creeks and streams) into project design to retain natural hydrologic patterns and to retain habitat that might be used by Covered Species.

Condition 2. Avoid and Minimize Urban Development Direct and Indirect Impacts to Existing Preserves and SSHCP Preserves

Development Covered Activities adjacent to Preserves may adversely impact species that use the Preserve, and erode or eliminate the conservation benefits provided by the Preserve. Condition 2 seeks to avoid or minimize the following Covered Activity environmental stressors that may result in direct and indirect impacts to the SSHCP Preserve System:

- Alterations to landscape hydrology from new impervious surfaces may adversely affect natural communities in the lower watershed, the ecology of a Preserve, and/or downstream aquatic resources.
- Water runoff from development or from roadways directed into Preserves may introduce harmful substances into Preserves. Unseasonal and/or additional water entering a Preserve may eliminate vernal pools and other seasonal wetlands native to the region by converting them to low-functioning perennial wetlands.
- Development adjacent to Preserves may partially to fully remove the soil's "perched aquifer" (see Chapter 3) and reduce or eliminate the micro-watersheds that support the hydrology of vernal pools within the Preserve boundary. These changes may adversely affect the existing hydrologic regime of vernal pools by changing the timing, depth, and/or duration of vernal pool saturation and/or ponding, causing long-term changes to a suite of vernal pool functions. For example, changes to water chemistry could adversely affect species habitat. Although the vernal pools remain, the environmental conditions of the pools may no longer provide habitat for vernal pool Covered Species, or provide the benefit of other wetland functions (e.g., stormwater attenuation) compared to pre-project conditions.
- Introduction or proliferation of non-native or invasive plant and wildlife species may displace native species.
- Landscaping in the interface of a development and a Vernal Pool–Grassland Preserve often includes native or non-native trees and other plant species that are not found in California grasslands and, therefore, cannot survive on the Vernal Pool–Grassland Preserve border without intensive irrigation and cultivation. In addition to adverse effects from irrigation and landscape maintenance, adult trees may become landscape barriers that inhibit species movement and may act to isolate individual Preserves from the larger SSHCP Preserve System.
- Recreational use of Preserves near developed areas may compact soils, eliminate vegetation, impair hydrologic functions, introduce weeds or invasive plant species, and disturb plants and wildlife.

- Introduction of light, noise, or vibrations may disrupt normal nocturnal and diurnal cycles of native species.

AMMs associated with Condition 2 must be applied to all UDA Covered Activities that border an existing Preserve or planned SSHCP Preserve.

EDGE-1 (Compatible Land Uses): To the maximum extent practicable, development project Covered Activities will locate compatible land uses (e.g., designated open space such as parks and ball fields, detention basins, and other land uses with less-intensive human activity) in areas immediately adjacent to existing or planned Preserve boundaries. The compatible land use will provide additional buffering of Preserves from potential indirect effects of adjacent urban development. The soil surfaces in a compatible land use area may be re-contoured provided that the soil restrictive layer remains undamaged and most of the soil profile above the restrictive layer remains intact. The Land Use Authority will determine when it is not practicable to locate a compatible land use adjacent to existing or planned Preserve boundaries.

EDGE-2 (Single-Loaded Streets): To the maximum extent practicable, the design of Urban Development Covered Activities will locate single-loaded streets adjacent to existing or planned Preserve. The Land Use Authority will determine when single-loaded streets are not practicable.

EDGE-3 (Preserve Setbacks): Urban Development Covered Activities constructed adjacent to existing or planned Preserves must establish a minimum 50-foot-wide setback outward from the boundary of any existing Preserve or planned SSHCP Preserve. This minimum 50-foot-wide setback will function as a transition between Urban Development and the Preserve, and must be managed to maintain the natural community of vegetation present in the adjacent Preserve. As much of the setback as possible should remain in the same natural habitat as the Preserve.

However, as discussed in Section 5.2.5, Covered Activities in Preserve Setbacks in the UDA, where an existing or planned Preserve is adjacent to an existing roadway (e.g., collectors, arterials, thoroughfares), the 50-foot Preserve Setback will not be required, and any bicycle or pedestrian trail will be established in the road right-of-way. In addition, where a planned roadway crosses an existing or planned Preserve, no Preserve Setback will be required, and any bicycle or pedestrian trail will be established in the road right-of-way.

EDGE-3a (Setback Recreational Trails): Trails are best suited outside of the setback; however, certain types of recreational trails or facilities (e.g., benches, trash receptacles, shade structures, fencing) that can be constructed with minimum ground disturbance and in compliance with EDGE-7 may be allowed within a Preserve Setback, as specified in Section 5.2.5, Covered Activities in Preserve Setbacks in the UDA. Preserve Setback design must locate trails on the side nearest development, away from the Preserve boundary. Trails may be permeable or semi-permeable hiking trails or paved community trials. The maximum trail width will be 16 feet total, including 2-foot-wide shoulders. Post and cable fencing, split rail, or other open fencing will be installed adjacent to recreation trails to keep pedestrians on the trail.

EDGE-3b (Setback Firebreaks): If approved by the local authorities, the Preserve Setback trail may also be used as a firebreak. In instances where a trail cannot act as a firebreak, the firebreak will be located between the trail and the Preserve boundary (see Section 5.2.7). Firebreaks allowed inside the setbacks must be created by methods that will not disturb the soil's restrictive layer, such as mowing, minor scraping of surface vegetation, or shallow tilling, to comply with EDGE-7. Firebreak width within Preserve Setbacks is the minimum width needed to comply with applicable local codes.

EDGE-3c (Setback Shade Trees and Landscaping): To prevent potential impacts from irrigation water or from accumulation of leaf litter onto the grasslands or vernal pools of a Preserve, planting of shade trees or landscaping vegetation will be limited to the area of the Preserve Setback located between the recreation trail and the adjacent urban development (i.e., away from Preserves).

- Only drought-tolerant plant species will be planted. The planting pallet used for Preserve Setback landscaping will not include invasive plant species listed in the California Invasive Plant Council's (Cal-IPC) California Invasive Plant Inventory Database or listed in the Cal-IPC California Invasive Plant Watch List (see http://www.cal-ipc.org/paf/). Any shade trees planted along Preserve Setback trails will be native species that are found in California grasslands and that can survive in the Vernal Pool–Grassland border without long-term irrigation or fertilization (e.g., valley oak, black oak, blue oak, oracle oak). In general, no more than 30% of any 1,000-foot-long segment of a Preserve Setback trail will have canopy cover from tree plantings (to be consistent with maximum tree densities naturally found within native California grasslands and savanna).

- Drip irrigation will be allowed for a maximum of 5 years to establish shade trees or landscape vegetation between the recreation trail and adjacent urban development. The Implementing Entity has the discretion to allow irrigation to continue past 5 years if extenuating circumstances necessitate it (e.g., during a drought) and the continuance of irrigation will not affect the Preserve. Any irrigation systems located within Preserve Setbacks will be inspected quarterly to determine if such systems are affecting soils or vegetation not part of the intended plantings. Irrigation system repairs will be completed immediately if it is determined that the irrigation system is affecting vegetation or soil moisture not part of the intended tree planting.
- If, during annual monitoring of the adjacent Preserve (see Chapter 8), adverse indirect effects (e.g., leaf litter accumulation, irrigation runoff, plant encroachment) of the Preserve Setback's planted vegetation are detected, then the SSHCP Implementing Entity, the Preserve Manager, and the entity responsible for the Preserve Setback will identify appropriate adaptive management of the Preserve Setback tree or landscape plantings in accordance with the Preserve Setback Easement (see Section 5.2.5 and Chapter 9).

EDGE-4 (Locate Stormwater Control Outside Preserves): Roads, sidewalks, and other impermeable surfaces of Urban Development Covered Activities adjacent to existing or planned Preserves will slope away from Preserves and Preserve Setbacks or intercept drainage with swales or curbs and gutters to preclude drainage from entering Preserves and Preserve Setbacks. Stormwater flows must be directed away from Preserves and Preserve Setbacks and directed into stormwater control facilities inside the development (outside Preserves and Preserve Setbacks)[18] (see EDGE-6 for exception to EDGE-4 in certain SSHCP Linkage Preserves).

EDGE-5 (Stormwater Control in Preserve Setbacks): If trails are established in any Preserve Setback in compliance with EDGE-3, the trail must be sloped away from the Preserve, and rainwater leaving the trail surface must flow into an adjacent low-velocity bio-retention swale or cell to keep rainwater runoff and trail contaminants from entering the Preserve. Low-velocity bio-retention swales or cells are typically small linear features placed on one or both sides of a trail. As required by EDGE-3, trails and their adjacent bio-retention swales or cells must be located on the side of the Preserve Setback nearest development.

[18] Detention basins are allowed in some Linkage Preserves consistent with the requirements of EDGE-6. At the time of SSHCP preparation, seven Linkage Preserves with drainages are planned SSHCP Preserves: L1, L2, L4, L7, L8, L9, and L10 (see Section 5.2.7 and Section 7.5). Also see project-specific measures in Section 5.5.1.

EDGE-6 (Detention Basins in Linkage Preserves): Because planned SSHCP Linkage Preserves L1, L2, L4, L7, L8, L9, and L10 (see Section 7.5) surround natural creeks or streams that must receive stormwater from planned adjacent Urban Development Covered Activities, a limited number of stormwater detention basins will be allowed on those Linkage Preserves. Detention basins within Linkage Preserves (see Section 5.2.7) will be designed and constructed with fill material to build up the perimeter of the detention basin so as not to impact the soil restrictive layer (duripan or hardpan) and function of the soil perched aquifer. Detention basins within Linkage Preserves will capture stormwater flows and runoff, and will discharge water to the stream/creek or percolate collected water to the soil perched aquifer. Detention basin structures that collect stormwater entering the basin or convey stormwater leaving the basin must be designed to avoid and minimize effects to Covered Species habitat in the Linkage Preserve.

EDGE-7 (Hardpan/Duripan Protection): To protect the soil perched aquifer and the micro-watersheds supporting existing vernal pool hydrology, activities that have the potential to cut into, disrupt, or remove the soil's restrictive layer (hardpan or duripan) will not occur within Preserves or Preserve Setbacks. However, in certain circumstances, the Covered Activities defined in Section 5.2.6, Covered Activities in Stream Setbacks in the UDA, and Section 5.2.8, Covered Activities in the Laguna Creek Wildlife Corridor of the Preserve System, may result in punctures[19] or other minor disruptions of the soil hardpan or duripan if approved by the Implementing Entity and the Technical Advisory Committee according to the process described in Chapter 9 of the SSHCP. If a Covered Activity on a Preserve or Preserve Setback results in a puncture or other disruption to the soil hardpan or duripan, the puncture will be sealed using bentonite clay or other material that maintains the functionality of the soil's restrictive layer and associated perched aquifer.

EDGE-8 (Outdoor Lighting): All outdoor lighting in Urban Development Covered Activity projects will be designed to minimize light pollution into existing and planned Preserves, except where a Land Use Authority Permittee determines lighting is necessary for public safety or security. Minimization measures may include light fixture placement (e.g., as low to the ground as possible), lamp designs (e.g., shielding, low glare, or no lighting), directing light away from Preserves, or other means to avoid or minimize light pollution. The Third-Party Project Proponent will use the best information available at the time of project design to minimize effects of light pollution on target SSHCP Covered Species (e.g., western spadefoot (*Spea*

[19] Punctures may include small holes that penetrate the soil hardpan or duripan such as might occur when digging or drilling holes for the installation of fence posts, sign posts, or trees.

hammondii), Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), and Ricksecker's water scavenger beetle (*Hydrochara rickseckeri*)).

EDGE-9 (Livestock Access to Preserves): Urban Development Covered Activity projects that include on-site Preserves will include in their design an adequate number of access points and facilities for delivery and pick up of grazing animals (livestock), such that these activities will not significantly alter the Preserve's habitat and are consistent with the protection of livestock and protection of adjacent public property, and include adequate public safety measures.

EDGE-10 (Prevent Invasive Species Spread): Completed Covered Activities (including roads) will be maintained in a manner that avoids the spread of invasive species into Preserve and Open Space areas. Such maintenance measures will include the following:

- To prevent the transport of non-native invasive species onto Preserves, before bringing any equipment onto an SSHCP Preserve or Preserve Setback, equipment must be cleaned of mud, dirt, and plant material. Cleaning will occur in the infested area or another appropriate location as approved by a Plan Permittee.
- Mowing rotation will start in un-infested areas and move to infested areas.
- Invasive plant prevention techniques will be incorporated into maintenance plans.
- The SSHCP Implementing Entity will survey road shoulders, ditches, and rights-of-way that border SSHCP Preserves for invasive weeds or other exotic plant species. Where roadside weed infestations have reached a critical control point, the Implementing Entity or Land Use Authority Permittee will apply the appropriate manual, mechanical, or chemical treatment.

Condition 3. Implement Construction Best Management Practices

AMMs associated with Condition 3 must be applied to all UDA Covered Activities.

BMP-1 (Construction Fencing): Orange construction fencing will be installed to ensure that ground disturbance does not extend beyond the allowed construction footprint (i.e., the limit of project construction plus equipment staging areas and access roads). Plan Permittees and Third-Party Project Proponents implementing ground-disturbing Covered Activities will mark the outer boundary of any Preserve Setback or Stream Setback adjacent to or within the project site with orange construction fencing prior to ground disturbance. This fencing will remain in place until project completion, as identified by the Plan Permittee.

BMP-2 (Erosion Control): Plan Permittees and Third-Party Project Proponents implementing ground-disturbing Covered Activities will install temporary control measures for sediment, stormwater, and pollutant runoff as required by the Plan Permittee to protect water quality and species habitat. Silt fencing or other appropriate sediment control device(s) will be installed downslope of any Covered Activity that disturbs soils.

Fiber rolls and seed mixtures used for erosion control will be certified as free of viable noxious weed seed. As discussed in Section 5.4.2, Covered Species Take Avoidance and Minimization Measures, erosion controls installed in or adjacent to Plan Area modeled habitat for giant gartersnake (*Thamnophis gigas*), western pond turtle (*Actinemys marmorata*), California tiger salamander (*California tiger salamander*), or western spadefoot (see Chapter 3) must be of appropriate design and materials that will not entrap the species (e.g., not contain mesh netting). Regular monitoring and maintenance of the project's erosion control measures will be conducted until project completion to ensure effective operation of erosion control measures.

BMP-3 (Equipment Storage and Fueling): Plan Permittees and Third-Party Project Proponents implementing ground-disturbing Covered Activities will ensure that equipment storage and staging will occur in the development footprint only (not sited in any existing on-site Preserve, planned on-site Preserve, Preserve Setback, Stream Setback, or aquatic land cover type). Fuel storage and equipment fueling will occur away from waterways, stream channels, stream banks, and other environmentally sensitive areas within the development footprint.

However, certain equipment storage and fueling activities can be allowed on Preserves within habitat re-establishment/establishment sites (refer to Section 5.2.7) if no location outside of the site is available. If a Covered Activity results in a spill of fuel, hydraulic fluid, lubricants, or other petroleum products, the spill will be absorbed and waste disposed of in a manner to prevent pollutants from entering a waterway, Preserve, Preserve Setback, or Stream Setback.

BMP-4 (Erodible Materials): Plan Permittees and Third-Party Project Proponents implementing Covered Activities must not deposit erodible materials into waterways. Vegetation clippings, brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks. Erodible material must be disposed of such that it cannot enter a waterway, Preserve, Preserve Setback, Stream Setback, or aquatic land cover type. If water and sludge must be pumped from a subdrain or other structure, the material will be conveyed to a temporary settling basin to prevent sediment from entering a waterway.

BMP-5 (Dust Control): Plan Permittees and Third-Party Project Proponents implementing ground-disturbing Covered Activities will water active construction sites regularly, if warranted, to avoid or minimize impacts from construction dust on adjacent vegetation and wildlife habitats. No surface water will be used from aquatic land covers; water will be obtained from a municipal source or existing groundwater well.

BMP-6 (Construction Lighting): Plan Permittees and Third-Party Project Proponents implementing ground-disturbing Covered Activities will direct all temporary construction lighting (e.g., lighting used for security or nighttime equipment maintenance) away from adjacent natural habitats, and particularly Riparian and Wetland habitats and wildlife movement areas.

BMP-7 (Biological Monitor): If a Covered Activity includes ground disturbance within Covered Species modeled habitat, an approved biologist will be on site during the period of ground disturbance, and may need to be on site during other construction activities depending on the Covered Species affected. After ground-disturbing project activities are complete, the approved biologist will train an individual to act as the on-site construction monitor for the remainder of construction, with the concurrence of the Permitting Agencies. The on-site monitor will attend the training described in BMP-8. The approved biologist and the on-site monitor will have oversight over implementation of Avoidance and Minimization Measures, and will have the authority to stop activities if any of the requirements associated with those measures are not met. If the monitor requests that work be stopped, the Wildlife Agencies will be notified within one working day by email. The approved biologist and/or on-site monitor will record all observations of listed species on California Natural Diversity Database field sheets and submit them to the California Department of Fish and Wildlife. The approved biologist or on-site monitor will be the contact source for any employee or contractor who might inadvertently kill or injure a Covered Species or who finds a dead, injured or entrapped individual. The approved biologist and on-site monitor's names and telephone numbers will be provided to the Wildlife Agencies prior to the initiation of ground-disturbing activities. Refer to species-specific measures for details on requirements for biological monitors.

BMP-8 (Training of Construction Staff): A mandatory Worker Environmental Awareness Program will be conducted by an approved biologist for all construction workers, including contractors, prior to the commencement of construction activities. The training will include how to identify Covered Species that might enter the construction site, relevant life history information and habitats, SSHCP and

statutory requirements and the consequences of non-compliance, the boundaries of the construction area and permitted disturbance zones, litter control training (SPECIES-2), and appropriate protocols if a Covered Species is encountered. Supporting materials containing training information will be prepared and distributed by the approved biologist. When necessary, training and supporting materials will also be provided in Spanish. Upon completion of training, construction personnel will sign a form stating that they attended the training and understand all of the Avoidance and Minimization Measures. Written documentation of the training must be submitted to the Implementing Entity within 30 days of completion of the training, and the Implementing Entity will provide this information to the Wildlife Agencies.

BMP-9 (Soil Compaction): After construction is complete, all temporarily disturbed areas will be restored similar to pre-project conditions, including impacts relating to soil compaction, water infiltration capacity, and soil hydrologic characteristics.

BMP-10 (Revegetation): Plan Permittees and Third-Party Project Proponents implementing ground-disturbing Covered Activities will revegetate any cut-and-fill slopes with native or existing non-invasive, non-native plants (e.g., non-native grasses) suitable for the altered soil conditions and in compliance with EDGE-2 and EDGE-8, if applicable.

BMP-11 (Speed Limit): Project-related vehicles will observe the posted speed limits on paved roads and a 10-mile-per-hour speed limit on unpaved roads and during travel in project areas. Construction crews will be given weekly tailgate instruction to travel only on designated and marked existing, cross-country, and project-only roads.

Condition 4. Avoid and Minimize Impacts that May Result from Implementation of Covered Transportation Projects

Urban Development transportation project and Rural Transportation Project Covered Activities, including bridge projects, can affect Covered Species. AMMs included for Condition 4 seek to avoid or minimize direct and indirect impacts that may result from construction of roadways or roadway improvements. Condition 4 applies to all transportation-related Covered Activities (see Sections 5.2.1 and 5.2.3).

Plan Permittees and Third-Party Project Proponents implementing Urban Development transportation or Rural Transportation Project Covered Activities must comply with the roadway siting, design, and construction AMMs described below.

ROAD-1 (Road Project Location): Road projects will be located in the least environmentally sensitive area to avoid, to the maximum extent practicable, impacts on Covered Species, Covered Species habitat, and waters of the United States. Road project alignments will follow existing roads, road easements, and rights-of-way, or be sited in disturbed areas to minimize habitat loss and additional habitat fragmentation.

ROAD-2 (Wildlife Crossing Structures): Road projects that are Urban Development Covered Activities (see Section 5.2.1) (including the Capital Southeast Connector, see Section 5.2.1.1) or are Rural Transportation Covered Activities (see Section 5.2.3) will include an adequate number of wildlife crossing structures, as depicted in Figure 5-10. An adequate number of wildlife crossing structures within the Urban Development Area (UDA) and outside the UDA will provide for continued dispersal and movement of native wildlife throughout the SSHCP Plan Area, as required by the SSHCP Biological Goals and Objectives (see Chapter 7).

The Plan defines "wildlife crossing structure" as a physical structure specifically designed or retrofitted to facilitate undercrossing for target wildlife species. The Plan further classifies wildlife crossings as hydrologic crossings and dry crossings. Hydrologic crossings are built where there is an existing stream, creek, or intermittent drainage to maintain existing hydrologic connectivity within the Plan Area. As described below, hydrologic crossings require specialized features to be built into the crossing structure, such as elevated platforms to allow wildlife to pass under a crossing structure when it is inundated with water. Dry wildlife crossings are built where there is no hydrologic feature but where a crossing is needed to provide for overland connectivity. SSHCP wildlife crossing structures may include structures such as bridges, arches, or box and pipe culverts.

Plan Permittees expect that future wildlife movement and dispersal within the UDA will occur almost entirely within the boundaries of the future interconnected SSHCP Preserve System (see Section 7.5). Therefore, wildlife crossings are needed wherever a roadway crosses (bisects) the conceptual SSHCP Preserve System (see Figure 5-10). Wildlife crossing structures inside the UDA will be sized to accommodate movement of a highly mobile native indicator species (i.e., coyote (*Canis latrans*)). By designing UDA wildlife crossing structures to meet the movement and dispersal requirements of coyote, the Plan Permittees anticipate that the crossing structure will also accommodate most native wildlife species that currently occupy the UDA (see Chapter 3).

The Plan Permittees expect that most of the Plan Area outside of the UDA will remain as Open Space over the 50-year Permit Term (see Chapter 4). Therefore,

the Plan Permittees expect that the Rural Transportation Project Covered Activities proposed outside the UDA will have a relatively small effect on the movement and dispersal of larger or more mobile native wildlife species, including coyote. Consequently, the Plan Permittees anticipate that the design of Rural Transportation Project Covered Activities outside the UDA will need to include wildlife crossing structures primarily where the Rural Transportation Project Covered Activities occur within California tiger salamander modeled habitat (see CTS-3 and also Chapter 3, Figure 3-16).

The design and location of wildlife crossing structures both inside the UDA and outside the UDA will be determined by collaboration between the Third-Party Project Proponent, the Land Use Authority, and the Implementing Entity. Crossing design will use the best available scientific and commercial information for the target species. The design of crossing structures will be based on demonstrated effectiveness of design for the target species when such information is available, or will be designed with a high level of certainty of success based on studies of similar taxa in similar environmental settings. The proposed wildlife crossing structures designs will be reviewed and approved by the Implementing Entity prior to final design.

The Implementing Entity will develop a Wildlife Crossing Maintenance Manual to be provided to the entity responsible for maintaining the wildlife crossing. The Wildlife Crossing Maintenance Manual will identify vegetation management, clearing of obstructions, and other techniques to maintain the desired movement and hydrologic connectivity, and to avoid effects to adjacent Preserves.

All SSHCP wildlife crossing structures in the UDA will include the following design elements:

- Open-bottom bridges or arches where the roadway crosses a river or stream. Where an open-bottom bridge or arch is used, the span of the crossing will be at least 1.2 times the bankfull width of the stream and span the banks to allow for dry wildlife passage along each side of the stream and to avoid or minimize piers or footings within the stream. (Bankfull width refers to the width of a stream channel at the point where over-bank flow begins during a flood event.)
- Any wildlife crossing structure that also maintains hydrologic connectivity will be designed to maintain pre-construction water capacity, depth, and velocity. The crossing structure will not restrict or impede normal flows or flood flows, unless a primary purpose of the structure is to manage such

flow(s). Wildlife crossing structures must be designed to provide a dry passage (e.g., a platform ledge) higher than flows for a 10-year storm event to allow wildlife to pass through an inundated crossing structure.

- Wildlife crossing structures in the UDA will be designed and sized to accommodate movement of at least medium-sized mammals (e.g., coyote). The opening must be at least 3 feet high and the crossing structure must have a minimum openness ratio of at least 0.4.
- Vegetation leading up to the entrance of a crossing structure and the substrate leading into and within the crossing structure will be natural and appropriate to provide for continuity of habitat, attract the target animal species for which the crossing is designed, and facilitate use of the crossing structure.
- A wildlife crossing under six-lane roads or larger will be designed to provide ambient light and temperature in the longer crossing structures (e.g., either by providing a larger opening or a grate at the top of the structure to improve the attractiveness of the crossing to certain Covered Species and wildlife that may hesitate to cross through dark, confined structures or one with a temperature gradient (Jackson and Griffin 2000)). If a road is less than six lanes in width, these designs will be optional.
- Lighting will not be placed at or near the entrance of a wildlife crossing structure to maintain natural ambient light conditions at night and to increase chances of wildlife use. However, a Land Use Authority Permittees may allow lighting if necessary for human health or safety.

Outside the UDA, wildlife crossing structures may be required for California tiger salamander (refer to CTS-1), and could also be required for other native species.

ROAD-3 (Roadside Pesticide Use[20]): If pesticide use is necessary along roadsides, the appropriate SSHCP Permittee will ensure that the pesticide application strictly complies with the pesticide label and all other applicable federal, state, and local authorities pertaining to the use, safety, storage, disposal, and reporting of the pesticide. Where roadside weed infestations have reached a critical control point, the Implementing Entity or a Land Use Authority Permittee will apply the appropriate manual, mechanical, or chemical treatment. In addition, the Implementing Entity or appropriate Land Use Authority Permittee will post signs along road shoulders adjacent to sensitive areas that are within the SSHCP

[20] Use of pesticides (including rodenticides and herbicides) is not an SSHCP Covered Activity. However, pesticide use specified in Section 5.3 is an allowed land management tool, provided the pesticide application is otherwise legal and conforms to all conditions in Section 5.4.

Preserve System (e.g., California tiger salamander breeding ponds, endemic plant populations, vertebrates that rely on insects for part of their diet). The signs will identify pesticide use restrictions or other roadside maintenance restrictions.

Condition 5. Avoid and Minimize Impacts that Result from Public Use of Low-Impact Nature Trails in Preserves

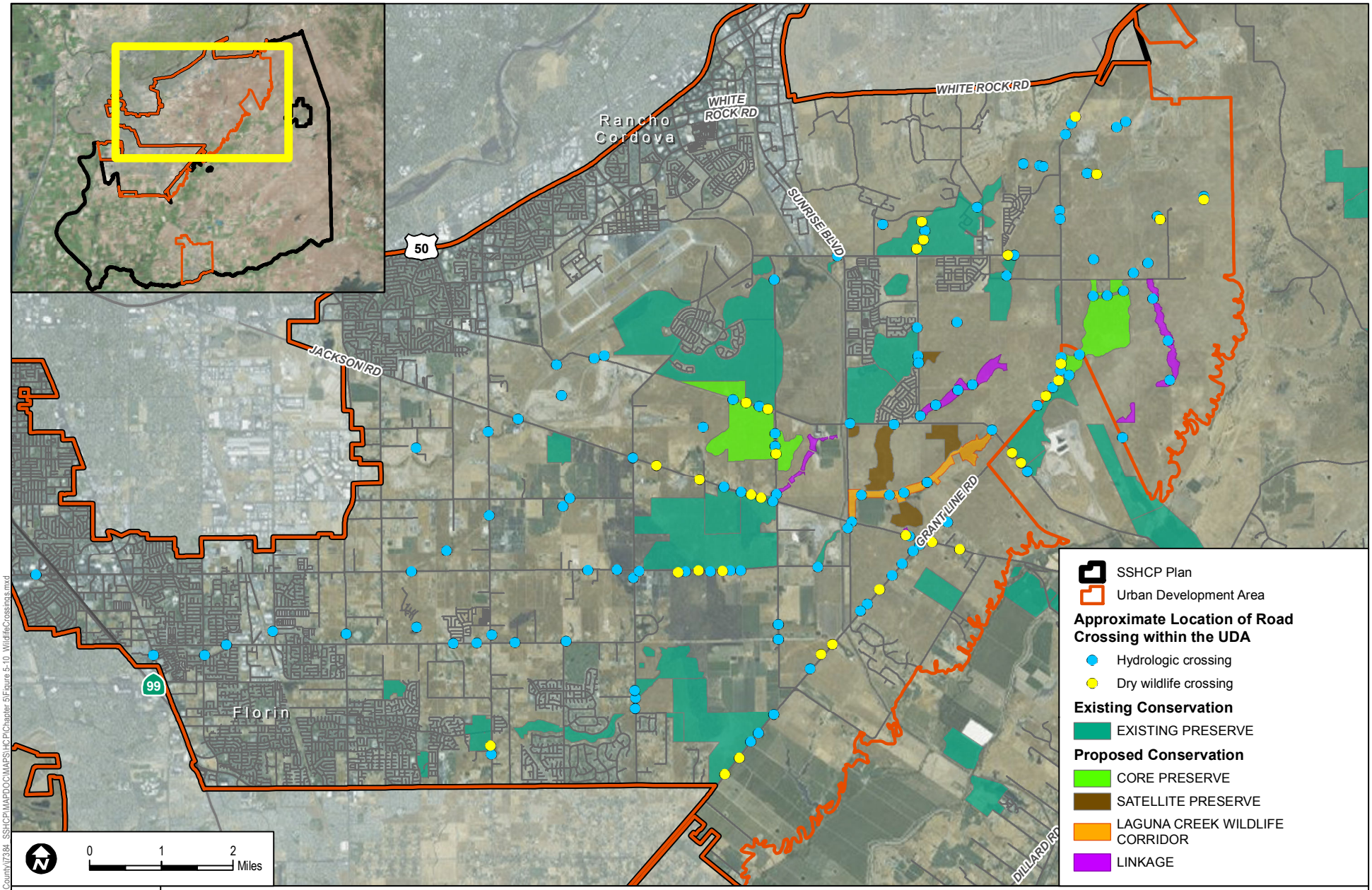
Preserves within the UDA are likely to be surrounded by urban development. As discussed in Section 5.2.7, allowing limited use of SSHCP Preserves will help to foster a sense of community ownership and will provide an opportunity to educate the community about the natural resources to be protected within the SSHCP Preserve System.

Low-impact nature trails will be designed following the AMMs outlined below.

NATURE TRAIL-1 (Nature Trail Plan): A nature trail plan must be prepared for each Preserve where a trail is allowed by the Preserve Management Plan. Nature trails will be unpaved trails that vary in width depending on terrain and existing constraints, but will never exceed 4 feet in width. Where a trail crosses a swale, wooden walkways elevated to a height no greater than 2 feet will be installed. Trail improvements may include mowing vegetation to create or maintain a trail, minor grading to remove trip hazards, and signs providing directional and educational information. Public access to land acquired for preservation will be prohibited until a trail plan can be prepared by the Implementing Entity and approved by the Permitting Agencies. A trail plan will include the following:

- Maps identifying areas that contain sensitive habitats or species occurrences.
- Maps that show the location and footprint of proposed trails.
- Methods used to control public access.
- Trail and use monitoring methods, schedules, and responsibilities.
- Trail operation and maintenance guidelines and responsibilities.
- Clear triggers for use restrictions or closure based on sensitive biological indicators (e.g., seasonal closures of some trails on the basis of activity periods of Covered Species or sensitive species).

NATURE TRAIL-2 (Nature Trail Protection of Duripan): Nature trails will be sited and constructed so as not to interfere with existing soil duripan and the perched aquifer that support the existing hydrologic regime of the Vernal Pool–Grassland, and will not interfere with existing pool hydrology. Trails within Preserves will not be paved.



Path: Z:\Projects\Sacramento_County\7384_SSHCP\MAPDOC\MAPS\HCP\Chapter 5\Figure 5-10_WildlifeCrossings.mxd

SOURCE: ESRI, County of Sacramento 2014, USFWS 2015

FIGURE 5-10

Wildlife Crossings

SOUTH SACRAMENTO HABITAT CONSERVATION PLAN

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NATURE TRAIL-3 (Nature Trail Location): Nature trails will be located away from sensitive natural resources (e.g., vernal pools, riparian habitat, woodland habitat, Covered Species occurrences, raptor nesting sites, tricolored blackbird (*Agelaius tricolor*) colony sites). The Wildlife Agencies will determine the distance necessary to avoid impacts to sensitive natural resources.

NATURE TRAIL-4 (Biological Studies Prior to Nature Trail Design): Biological studies will be conducted within the area being considered for nature trail construction prior to project design. The studies will include land cover type mapping and focused species surveys and/or wetland delineations. The biological studies will include assessments of potential effects of trail construction on Preserve System resources, and recommendations for avoidance and minimization that may be incorporated into project siting, design, construction, and operation.

NATURE TRAIL-5 (Monitoring of Nature Trail Impacts): Impacts that could result from use of a nature trail within a Preserve will be monitored according to the Preserve Management Plan (Chapter 8) to ensure that uses do not conflict with the individual Preserve Management Plan. If use of a trail is found to conflict with the individual Preserve Management Plan, use of that trail will be discontinued until adjustments in the use can be made to reduce or eliminate conflicts. The Implementing Entity will make decisions about discontinuing or modifying use of a trail in consultation with the Preserve Manager or other applicable Preserve management agency or organization.

Condition 6. Avoid and Minimize Impacts When Re-Establishing or Establishing Wetlands

As discussed in Chapter 7, the Plan Permittees anticipate that 389 acres of Vernal Pool habitat will be re-established or established[21] within the Plan Area as part of the SSHCP Conservation Strategy. Although re-establishment or establishment of vernal pools is a Measurable Objective under this Plan, if not done correctly, the action could have an adverse impact on existing vernal pools.

RE-ESTABLISHMENT/ESTABLISHMENT-1 (Vernal Pool): Re-establish or establish Vernal Pool Wetland according to the following guidelines:

- Re-establishment will always take priority over establishment of vernal pools. Establishment will be permitted only after it has been determined that sites with the potential to re-establish vernal pools no longer exist in the Plan Area or cannot be acquired through a willing seller/buyer agreement.

[21] In the context of this Plan, "establish" is synonymous with "create."

- When possible, re-established or established sites will be located adjacent to an existing Preserve(s) to maximize connectivity and Preserve area.
- Re-establishment or establishment will not result in direct or indirect adverse impacts to the hydrologic regime of existing vernal pools. Vernal pool re-establishment or establishment actions will not remove more than 10% of any existing vernal pool watershed, as defined by the SSHCP LIDAR analysis (see Section 3.3 and Conservation Action VPI1.2 in Table 7.1).
- Vernal pool re-establishment will attempt to restore the historical density and range of vernal pool sizes to the maximum extent feasible using historical aerial photography of the site, if available. Where aerial photography of the site's historical conditions is not available, vernal pool re-establishment will include a range of pool sizes (area and depth) to accommodate the different habitat needs and life history characteristics of the vernal pool invertebrate Covered Species.
- Established vernal pools must be located on sites with vernal pool soils, defined as any Plan Area soil type where vernal pools currently exist.
- Established vernal pool sites will include a range of pool sizes to accommodate the different habitat needs and life history characteristics of the three vernal pool invertebrate Covered Species.
- The total density of vernal pools will not exceed 10% of the suitable soil areas in any vernal pool re-establishment and/or establishment site, unless it can be shown that the suitable areas of that site historically supported greater densities.
- Re-establishment or establishment may include inoculation when it is likely that no seed or cyst bank of vernal pool species remains at a site. Vernal Pool inocula will come from nearby vernal pools that are on the same geologic formation and soil type.

RE-ESTABLISHMENT/ESTABLISHMENT-2 (Vernal Pool Inocula Bank): Vernal pool re-establishment or establishment may include "soil inoculation" when it is likely that no seed or cyst bank of vernal pool species remains at a re-establishment or establishment site.

- During conversion of Urban Development Area vernal pools to a developed land cover type, project proponents will excavate and retain soil from vernal pools following protocols developed by the SSHCP Technical Advisory Committee (Chapter 9).

- Inocula applied in re-established or established vernal pools must be harvested from a vernal pool that is on the same geologic formation and soil type shown on the County General Soil Map as the re-establishment/establishment site. Geologic formations and soil types will follow U.S. Department of Agriculture Soil Conservation Service's 1993 Soil Survey of Sacramento County, California. Proposed off-site inocula sources must be approved by the Wildlife Agencies.

RE-ESTABLISHMENT/ESTABLISHMENT-3 (Re-Establishment/Establishment of Freshwater Marsh or Open Water Near Airports): During review of proposed re-establishment/establishment projects for freshwater marsh or open water on SSHCP Preserves, the Implementing Entity shall consider the potential for the location of the re-establishment/establishment projects to increase the risk of wildlife strikes or generation of ground fog at airports. If a re-establishment/ establishment project would result in (1) a net increase in open water or freshwater marsh acreage over baseline conditions[22] within 5 miles of Mather Field, Sacramento Executive Airport, or Franklin Field; or (2) replacement of open water/freshwater marsh habitat that is located 2 or more miles from Mather Field or Sacramento Executive Airport with open water/freshwater marsh habitat that is located less than 2 miles from those airports, a qualified biologist shall prepare a concise letter report. The letter report shall summarize the biologist's findings regarding (1) the species likely to use the re-established/established habitat, (2) a rough order of magnitude estimate on the peak number of birds that might use the re-established/established habitat, and (3) potential movement patterns for birds using the re-established/established habitat and whether they might cross through the airport safety zones (e.g., to reach foraging habitat or another wildlife attractant). The letter report will also provide recommendations to the Implementing Entity on how they could reduce any of the identified wildlife hazards if there are any feasible means to do so that would not conflict with the biological goals and measurable objectives of the Conservation Plan.

Condition 7. Avoid and Minimize Impacts to Streams and Creeks

AMMs associated with Condition 7 must be applied to all Covered Activities where a stream or creek is located within a project footprint.

[22] For purposes of establishing baseline conditions, Freshwater Marsh and Open Water acreages will be calculated using that version of the SSHCP Land Cover Type Map in existence as of the date that the SSHCP permit was issued to the Plan Permittees by the USFWS.

STREAM-1 (Laguna Creek Wildlife Corridor): A 150-foot setback measured from the top of the bank on both sides of the stream will be applied to Laguna Creek within the Urban Development Area (minimum 300-foot corridor width). If trails are located within the Laguna Creek Wildlife Corridor, the nearest edge of the trail will be located at least 80 feet from the top of the bank.

STREAM-2 (UDA Stream Setbacks): A 100-foot setback measured from the top of the bank on both sides of the stream channel will be applied to all streams listed in Table 5-1 (see also Figure 2-4). If a stream reach supports woody riparian vegetation, the setback will be equal to the riparian edge plus 25 feet or will be the setback defined above, whichever is greater. If trails are located within the Stream Setback, the nearest edge of the trail will be located at least 50 feet from the top of the bank.

Table 5-1
Stream Setback Minimum Requirements in the Urban Development Area

Stream	Minimum Setback (from the Top of Bank Measured in Aerial Perspective) on Both Sides of the Stream
Elder Creek	100 feet
Frye Creek	100 feet or as depicted as part of the NewBridge development project hardline Preserve (see Appendix K)
Gerber Creek	100 feet
Morrison Creek	100 feet
Central Paseo	100 feet or as depicted as part of the Cordova Hills development project hardline Preserve (Appendix K)
Sun Creek	100 feet or as depicted as part of the Sun Creek development project hardline Preserve (see Appendix K)

STREAM-3 (Minor Tributaries to UDA Streams): A 25-foot setback measured from the top of the bank on both sides of the stream channel will be applied to all avoided first and second order tributaries to the streams listed in Table 5-1 and Laguna Creek. Refer to Objective W6 in Chapter 7 (Table 7-1) regarding avoided first and second order tributaries. Trails are not permitted within headwater ephemeral Stream Setbacks.

STREAM-4 (Minimize Effects from Temporary Channel Re-Routing): When an Urban Development Covered Activity temporarily re-routes a stream, creek, or drainage, the re-routing will be completed in a manner that minimizes impacts to beneficial uses and habitat. The following measures will be employed to minimize disturbances that will adversely impact water quality:

- No equipment will be operated in areas of flowing or standing water.
- Construction materials and heavy equipment must be stored outside of the active flow of any waters.

- When work within waters is necessary, the entire stream flow will be diverted around the work area.
- In the event of rain, the disturbed in-water work area will be temporarily stabilized before water body flow exceeds the capacity of the diversion structure. The disturbed water body will be stabilized so that the disturbed areas will not come in contact with the flow.
- Once construction is complete, all project-introduced material (e.g., pipes, gravel, cofferdam, sandbags) must be removed, leaving the water as it was before construction. Excess materials will be disposed of at an appropriate disposal site.
- All work areas will be effectively isolated from stream flows using suitable control measures before commencement of any in-water work. The diverted stream flow will not be contaminated by construction activities. Structures for isolating the in-water work area and/or diverting the stream flow (e.g., cofferdam, geo-textile silt curtain) will not be removed until all disturbed areas are cleaned and stabilized.
- Any flow diversion used during construction will be designed in a manner to prevent pollution and minimize siltation, and will provide flows to downstream reaches. Flows will be maintained to support existing aquatic life, riparian wetlands, and habitat that may be located upstream and downstream from any temporary diversion.
- All surface waters, including ponded waters, will be diverted away from areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity that may result in a discharge to waters.
- All temporary dewatering methods will be designed to have the minimum necessary impacts to waters to isolate the immediate work area. All dewatering methods will be installed such that natural flow is maintained upstream and downstream of the diversion area. Any temporary dams and diversions will be installed such that the diversion does not cause sedimentation, siltation, or erosion upstream or downstream of the diversion area. All dewatering methods will be removed immediately upon completion of diversion activities.
- A method of containment must be used below any bridge, boardwalk, and/or temporary crossing to prevent debris from falling into the waters through the entire duration of a project.

- If temporary surface water diversions and/or dewatering are anticipated, the Third-Party Project Proponent will develop and maintain on site a surface water diversion and/or dewatering plan. The plan(s) must be developed prior to initiation of any water diversions and will include the proposed method and duration of diversion activities. The plan(s) must be made available to Central Valley Water Board staff upon request.
- When work in a flowing stream is unavoidable and any dam or other artificial obstruction is being constructed, maintained, or placed in operation, sufficient water will be allowed at all times to pass downstream to maintain beneficial uses of waters below the dam. Construction, dewatering, and removal of temporary cofferdams will not violate the turbidity, settle-able matter, pH, temperature, or dissolved oxygen requirements of any Water Quality Control Plan.
- Any temporary dam or other artificial obstruction will only be built from clean materials such as sandbags, gravel bags, water dams, or clean/washed gravel that will cause little or no siltation. Stream flow will be temporarily diverted using gravity flow through temporary culverts or pipes, or pumped around the work site with the use of hoses.

STREAM-5 (Design for Stream Channel Re-Routing, Widening, or Deepening): When an Urban Development Covered Activity alters a stream, creek, or drainage by re-routing, widening, or deepening a channel, the project design will include the following:

- The main channel of a re-routed channel will be free to migrate laterally over its active and terrace floodplain.
- Channel geometry (plan, profile, and cross-section) of the site will be appropriate for the watershed location and physical/hydrologic condition.
- Local, native materials will be used as fill material to the extent practicable.
- Bioengineering techniques will be used for construction and maintenance of bank stabilization. Bioengineered bank stabilization structures will use vegetation in combination with bank reshaping; biodegradeable geotextile materials; and, in some cases, a minimal amount of rock or wood to the extent practicable to dissipate erosive energy. Third-Party Project Proponents will consult a professional engineer when considering using bioengineering techniques.
- All re-routed, widened, or deepened streams are required to establish Stream Setbacks with minimum widths required under STREAM-1, STREAM-2, or STREAM-3. All re-routed, widened, or deepened streams must re-establish/

establish and maintain native Woody Riparian land cover and/or native Grassland Riparian land cover in the entire Stream Setback.

Condition 8. Avoid and Minimize Impacts to Covered Species from Utility and Utility Maintenance Covered Activities

AMMs associated with Condition 8 must be applied to all Covered Activities associated with construction and maintenance of infrastructure projects.

UTILITY-1 (Avian Collision Avoidance): Installation of new, or relocation of existing, utility poles, lines, and cell towers located within the Preserve System or within 1,000 feet of a Preserve boundary will be coordinated with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife. The applicant or relevant utility/service provider will install utility poles, lines, and cell towers in conformance with Avian Powerline Interaction Committee (APLIC) standards for collision-reducing techniques, as outlined in Reducing Avian Collisions with Power Lines: State of the Art in 2012 (APLIC 2012), or any superseding document issued by the APLIC.

UTILITY-2 (Utility Maintenance on Preserves): Utility maintenance inside SSHCP Preserves and SSHCP Preserve Setbacks containing vernal pools will occur only when vernal pools have been dry for 30 days, except in emergency situations related to human health and safety.

UTILITY-3 (Trenchless Construction Methods): Where a pipeline or conduit crosses an existing or planned Preserve or will be located between adjacent Preserves (e.g., under a roadway that has a Preserve on both sides), trenchless construction methods will be used to minimize impacts to the existing soil profile (including impacts to a hardpan or duripan) to maintain the perched aquifer in Vernal Pool Grassland land cover type.

UTILITY-4 (Siting of Entry and Exit Location): The entry and exit locations for the trenchless construction method (see Utility-3) will be sited to avoid impacts to vernal pools and Riparian Woodland, and to avoid direct take of SSHCP Covered Species.

Condition 9. Avoid and Minimize Impacts That Might Result From Removing or Breaching Levees to Establish or Re-establish Riparian Habitat

LEVEE-1 (Preparation of Hydrologic Analysis): Prior to approving a draft Preserve Management Plan that includes (1) modifying or breaching an existing levee, or (2) would place a potential impedance to high-water event flood-flows on the water side of an existing levee (including new riparian vegetation plantings or

other new Preserve facilities), a hydrologic analysis will be conducted. The Preserve activity will only be implemented if the hydrologic analysis concludes that the activity will not result in a substantial increase in flood stage elevations or flood risk on lands outside the Preserve.

Condition 10. Avoid and Minimize Impacts That Might Result From Potential Residual Contamination of Preserves and Related Exposure of People to Such Hazardous Materials

HAZARDOUS MATERIALS-1 (Preparation of Phase I Environmental Site Assessment): Prior to the acquisition of a preserve site or implementation of a stream or riparian restoration project, a Phase I Environmental Site Assessment shall be conducted in general accordance with the American Society for Testing and Materials Standard Practice E1527-05. The purpose of this Environmental Site Assessment is to identify, to the extent feasible pursuant to the American Society for Testing and Materials Standard, recognized environmental conditions in connection with the potential site. The term "recognized environmental condition" means the presence or likely presence of hazardous substances or petroleum products on the property under conditions that may indicate an existing release, a past release, or a material threat of release of these substances to the property. If the Phase 1 Environmental Site Assessment indicates the presence of a recognized environmental condition, the Implementing Entity shall consider the following options.

- Determine that the acquisition/project can proceed on the basis that the Habitat Plan goals and objectives can be met on the site even with the presence of a recognized environmental condition.
- Conduct a Phase II Environmental Site Assessment, including soil and groundwater testing, to further study the potential for contamination to limit the Implementing Entity's management activities.
- If the results of the Phase I (or Phase II) Environmental Site Assessment indicate that the Habitat Plan goals and objectives cannot be met on the site, the Implementing Entity should not acquire the site.

HAZARDOUS MATERIALS-2 (Contingency Plan): As part of each Preserve Management Plan or site restoration plan, a Contingency Plan shall be prepared to address the actions that would be taken during construction in the event that unexpected contaminated soil or groundwater is discovered. The Contingency Plan shall include health and safety considerations, handling and disposal of wastes, reporting requirements, and emergency procedures. The Contingency Plan shall include a requirement that if evidence of contaminated materials is encountered

during construction, construction would cease immediately and applicable requirements of the Comprehensive Environmental Release Compensation and Liability Act and the California Code of Regulations Title 22 regarding the disposal of waste would be implemented.

5.4.2 Covered Species Take Avoidance and Minimization Measures

The following section describes measures to avoid or minimize effects of Covered Activities on specific SSHCP Covered Species. Species-specific AMMs include species surveys, pre-construction surveys, and construction monitoring. Most species-specific AMMs require that species surveys be conducted if Covered Species modeled habitat is within the proposed Covered Activity footprint or within a specified distance of the proposed Covered Activity. Section 3.4 provides maps and descriptions of modeled habitat for each Covered Species. The AMMs described below apply to Covered Activities when Covered Species modeled habitat or a Covered Species occurrence are at a project site. The Implementing Entity and Wildlife Agencies may update specific SSHCP AMMs over the Permit Term to provide the best and most appropriate protective measures for a Covered Species.

General Covered Species Take Avoidance and Minimization Measures

The following AMMs will apply to all Covered Activities that are required to implement Covered Species take AMMs.

SPECIES-1 (Litter Removal Program): A litter control program will be instituted for the entire project site. All workers will ensure that their food scraps, paper wrappers, food containers, cans, bottles, and other trash are deposited in covered or closed trash containers. All garbage will be removed from the project site at the end of each work day, and construction personnel will not feed or otherwise attract wildlife to the area where construction activities are taking place.

SPECIES-2 (No Pets in Construction Areas): To avoid harm and harassment of native species, workers and visitors will not bring pets onto a project site.

SPECIES-3 (Take Report): If accidental injury or death of any Covered Species occurs, workers will immediately inform the approved biologist or on-site monitor and site supervisor. The approved biologist or on-site monitor will phone the appropriate contact person at the Implementing Entity. The Implementing Entity will immediately contact the Wildlife Agencies by telephone. A memorandum will be provided to the Implementing Entity and Wildlife Agencies within 1 working day of the incident. The report will provide the date and location of the incident, number of individuals taken,

the circumstances resulting in the take, and any corrective measures taken to prevent additional take.

SPECIES-4 (Post-Construction Compliance Report): A post-construction compliance report will be submitted to the SSHCP Implementing Entity within 30 calendar days of completion of construction activities or within 30 calendar days of any break in construction activity that lasts more than 30 days. The report will detail the construction start and completion dates, any information about meeting or failing to meet species take Avoidance and Minimization Measures (AMM), effectiveness of each AMM that was applied at the project site, and any known project effects to Covered Species.

Rare Plants

PLANT-1 (Rare Plant Surveys): If a Covered Activity project site contains modeled habitat for Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii)*, Bogg's Lake hedge-hyssop (*Gratiola heterosepala)*, dwarf downingia (*Downingia pusilla)*, Legenere (*Legenere limosa*), pincushion navarretia (*Navarretia myersii)*, or Sanford's arrowhead (*Sagittaria sanfordii*), the Covered Activity project site will be surveyed for the rare plant by an approved biologist and following the California Department of Fish and Wildlife (CDFW) rare plant survey protocols (CDFG 2009) or the most recent CDFW rare plant survey protocols. An approved biologist will conduct the field surveys and will identify and map plant species occurrences according to the protocols. See Chapter 10 for the process to submit survey information to the Plan Permittee and the Permitting Agencies.

PLANT-2 (Rare Plant Protection): If a rare plant listed in AMM PLANT-1 is detected within an area proposed to be disturbed by a Covered Activity or is detected within 250 feet of the area proposed to be disturbed by a Covered Activity, the Implementing Entity will assure one unprotected occurrence of the species is protected within a SSHCP Preserve before any ground disturbance occurs a the project site.

Sacramento and Slender Orcutt Grass

Sacramento Orcutt grass (*Orcuttia viscida*) is a federally and state endangered species and is ranked by the California Native Plant Society as a California Rare Plant Rank 1B.1 species. Slender Orcutt grass (*Orcuttia tenuis*) is a federally threatened and state endangered species and is ranked by the California Native Plant Society as a California Rare Plant Rank 1B.1 species. Both Orcutt grasses are very rare, and the likelihood of finding new occurrences within the Plan Area is low. Due to their rarity, take of either of these species is not permitted under the SSHCP, with the exception of take related to Preserve management and monitoring (see Section 5.2.7, SSHCP Preserve System Covered Activities).

ORCUTT-1 (Orcutt Grass Surveys): If a Covered Activity project site is located within 1 mile of the Mather Core Recovery Area and contains the Vernal Pool land cover type, the project site will be surveyed for Sacramento and slender Orcutt grass by an approved biologist following California Department of Fish and Wildlife (CDFW) rare plant survey protocols (CDFG 2009) or most recent CDFW guidelines to determine if Sacramento and/or slender Orcutt grass is present. An approved biologist will conduct the field investigation to identify and map occurrences. See Chapter 10 for the process to conduct and submit survey information.

ORCUTT-2 (Orcutt Grass Protection): Where known or new Sacramento or slender Orcutt grass occurrences are found, they will be protected within an SSHCP Preserve that is at least 50 acres. The occurrence will be located interior to the Preserve at a distance of no less than 300 feet from the edge of the Preserve boundary. If a Third-Party Project Proponent encounters a previously undiscovered occurrence of Sacramento or slender Orcutt grass on a Covered Activity project site, the Third-Party Project Proponent will contact the Implementing Entity or Land Use Authority Permittee with authority over the project, who will coordinate with the Wildlife Agencies for written concurrence of avoidance to ensure that the project does not cause take of the species.

California Tiger Salamander

To avoid direct and indirect effects of Covered Activities on California tiger salamander (*Ambystoma californiense*), the following AMMs will be implemented.

CTS-1 (California Tiger Salamander Daily Construction Schedule): Ground-disturbing Covered Activities within California tiger salamander modeled habitat (Figure 3-16) will occur outside the breeding and dispersal season (occur after July 31 and before October 15), to the maximum extent practicable. If Covered Activities must be implemented in modeled habitat (Figure 3-16) during the breeding and dispersal season (after October 15 and before July 31), construction activities will not start until 30 minutes after sunrise and must be complete 30 minutes prior to sunset.

CTS-2 (California Tiger Salamander Exclusion Fencing): If a Covered Activity must be implemented in modeled habitat (Figure 3-16) during the breeding and dispersal season (after October 15 and before July 31), exclusion fencing will be installed around the project footprint before October 15. Temporary high-visibility construction fencing will be installed along the edge of work areas, and exclusion fencing will be installed immediately outside of the temporary high-visibility construction fencing to exclude California tiger salamanders from entering the construction area or becoming entangled in the construction fencing. Exclusion fencing will be at least 1 foot tall and be buried

at least 6 inches below the ground to prevent salamanders from going under the fencing. Fencing will remain in place until all construction activities within the construction area are complete. No project activities will occur outside the delineated project footprint. An approved biologist must inspect the exclusion fencing and project site every morning before 7:00 a.m. for integrity and for any entrapped California tiger salamanders. If a California tiger salamander is encountered, refer to CTS-5, below. (However, the Implementing Entity may, with approval of the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW), determine that it is appropriate for a Covered Activity project to not implement CTS-2 for certain long and linear roadway Covered Activity projects if it appears that the exclusion fencing will likely trap individuals or cause more take of California tiger salamander than it would prevent.)

CTS-3 (California Tiger Salamander Monitoring): If Covered Activities must be implemented in modeled habitat (Figure 3-16), an approved biologist experienced with California tiger salamander identification and behavior will monitor the project site, including the integrity of any exclusion fencing. The approved biologist will be on site daily while construction-related activities are taking place, and will inspect the project site for California tiger salamander every morning before 7:00 a.m., or prior to construction activities. As required by BMP-8 (Training of Construction Staff), the approved biologist will also train construction personnel on the required California tiger salamander avoidance procedures, exclusion fencing, and correct protocols in the event that a California tiger salamander enters an active construction zone. If a California tiger salamander is encountered, refer to CTS-5, below.

CTS-4 (Avoid California Tiger Salamander Entrapment): If Covered Activities must be implemented in modeled habitat, all excavated steep-walled holes or trenches more than 6 inches deep will be covered with plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes or trenches will be inspected by the approved biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within California tiger salamander modeled habitat will be inspected for California tiger salamanders by the approved biologist prior to being moved. If a California tiger salamander is encountered, refer to CTS-5, below.

CTS-5 (California Tiger Salamander Encounter Protocol): If a California tiger salamander is encountered during construction activities, the approved biologist will notify the Wildlife Agencies immediately (California Department of Fish and Wildlife (CDFW)

and U.S. Fish and Wildlife Service (USFWS)). Construction activities will be suspended in a 100-foot radius of the animal until the animal is relocated by an approved biologist with appropriate handling permits from the Wildlife Agencies. Prior to relocation, the approved biologist will notify the Wildlife Agencies to determine the appropriate procedures related to relocation. If the animal is handled, a report will be submitted, including date(s), location(s), habitat description, and any corrective measures taken to protect the salamander, within 1 business day to the Wildlife Agencies. The biologist will report any take of listed species to USFWS and CDFW immediately. Any worker who inadvertently injures or kills a California tiger salamander or who finds dead, injured, or entrapped California tiger salamander(s) must immediately report the incident to the approved biologist.

CTS-6 (Erosion Control Materials in California Tiger Salamander Habitat): If erosion control (BMP-2) is implemented within California tiger salamander modeled habitat (Figure 3-16), non-entangling erosion control material will be used to reduce the potential for entrapment. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure that salamanders are not trapped (no monofilament). Coconut coir matting and fiber rolls with burlap are examples of acceptable erosion control materials. This limitation will be communicated to the contractor through use of special provisions included in the bid solicitation package.

CTS-7 (Rodent Control): CTS-7 only applies to projects that are within California tiger salamander modeled habitat (Figure 3-16) and on Covered Activities. Rodent control will be allowed only in developed portions of a Covered Activity project site. Where rodent control is allowed, the method of rodent control will comply with the methods of rodent control discussed in the 4(d) Rule published in the U.S. Fish and Wildlife Service's (2004) final listing rule for tiger salamander.

Western Spadefoot

To avoid direct and indirect effects of Covered Activities on western spadefoot (*Spea hammondii*), the following AMMs will be implemented.

WS-1 (Western Spadefoot Work Window): Ground-disturbing Covered Activities within western spadefoot modeled habitat (Figure 3-17) will occur outside the breeding and dispersal season (after May 15 and before October 15), to the maximum extent practicable.

WS-2 (Western Spadefoot Exclusion Fencing): If Covered Activities must be implemented in modeled habitat (Figure 3-17) after October 15 and before May 15, exclusion fencing

will be installed around the project footprint before October 15, and the project site must be monitored by an approved biologist following rain events. Temporary high-visibility construction fencing will be installed along the edge of work areas, and silt fencing will be installed immediately behind the temporary high-visibility construction fencing to exclude western spadefoot from entering the construction area. Fencing will remain in place until all construction activities within the construction area are completed. No project activities will occur outside the delineated project footprint. If a western spadefoot is encountered, refer to WS-6, below.

WS-3 (Western Spadefoot Monitoring): If Covered Activities must be implemented in modeled habitat (Figure 3-17) in the breeding and dispersal season (after October 15 and before May 15), an approved biologist experienced with western spadefoot identification and behavior will monitor the project site, including the integrity of any exclusion fencing. The approved biologist will be on site daily while construction-related activities are taking place, and will inspect the project site daily for western spadefoot prior to construction activities. The approved biologist will also train construction personnel on the required avoidance procedures, exclusion fencing, and protocols in the event that a western spadefoot enters an active construction zone (i.e., outside the buffer zone). If a western spadefoot is encountered, refer to WS-6, below.

WS-4 (Avoid Western Spadefoot Entrapment): If a Covered Activity occurs in western spadefoot modeled habitat (Figure 3-17), all excavated steep-walled holes and trenches more than 6 inches deep will be covered with plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes and trenches will be inspected by the approved biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within western spadefoot modeled habitat will be inspected for western spadefoot by the approved biologist prior to being moved. If a western spadefoot is encountered, refer to WS-6, below.

WS-5 (Erosion Control Materials in Western Spadefoot Habitat): If erosion control (BMP-2) is implemented within western spadefoot modeled habitat (Figure 3-17), non-entangling erosion control material will be used to reduce the potential for entrapment. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure that western spadefoots are not trapped (no monofilament). Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials.

WS-6 (Western Spadefoot Encounter Protocol): If Covered Activities must be implemented in modeled habitat (Figure 3-17) during the breeding and dispersal season (after October 15 and before May 15), and a western spadefoot is encountered during construction activities, the approved biologist will notify the Wildlife Agencies immediately. Construction activities will be suspended in a 100-foot radius of the animal until the animal leaves the project site on its own volition. If necessary, the approved biologist will notify the Wildlife Agencies to determine the appropriate procedures related to relocation. If the animal is handled, a report will be submitted, including date(s), location(s), habitat description, and any corrective measures taken to protect the western spadefoot within 1 business day to the Wildlife Agencies. The biologist will report any take of listed species to the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife immediately. Any worker who inadvertently injures or kills a western spadefoot or who finds dead, injured, or entrapped western spadefoot(s) must immediately report the incident to the approved biologist.

Giant Gartersnake

To avoid direct and indirect effects of Covered Activities on giant gartersnake (*Thamnophis gigas*), the following AMMs will be implemented.

GGS-1 (Giant Gartersnake Surveys): If the SSHCP giant gartersnake modeled habitat maps (Figure 3-18) show that modeled habitat for giant gartersnake is present within a Covered Activity's project footprint or within 300 feet of a project footprint, then an approved biologist will conduct a field investigation to delineate giant gartersnake aquatic habitat within the project footprint and adjacent areas within 300 feet of the project footprint. In addition to the SSHCP land cover types shown in Figure 3-18, giant gartersnake aquatic habitat includes, but is not limited to, low-gradient streams and creeks, open water, freshwater marsh, agricultural ditches, and rice fields. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. The Third-Party Project Proponent will map all existing or potential sites and provide these maps to the Local Land Use Permittees and the Implementing Entity. Locations of delineated giant gartersnake habitat must also be noted on plans that are submitted to a Local Land Use Permittee. The applicant will use this information to finalize project design. Covered Activities may occur throughout the year as long as giant gartersnake habitat is identified and fully avoided. Otherwise, Covered Activities must comply with GGS-2 through GGS-8, below. See Chapter 10 for the process to conduct and submit survey information.

GGS-2 (Giant Gartersnake Work Window): Covered Activities that do not fully avoid giant gartersnake modeled habitat (Figure 3-18) will be conducted during the snake's active

season. Construction and ground-disturbing activities will be initiated after May 1 and will end prior to September 15. If it appears that construction activities may go beyond September 15, the Third-Party Project Proponent or Plan Permittee will contact the Local Land Use Permittee and the Implementing Entity as soon as possible, but not later than September 1. The Local Land Use Permittee and the Implementing Entity will discuss with the Wildlife Agencies additional measures necessary to minimize take.

GGS-3 (Giant Gartersnake Monitoring): If a Covered Activity is occurring in giant gartersnake modeled habitat (Figure 3-18), an approved biologist experienced with giant gartersnake identification and behavior will monitor the project site, including the integrity of any exclusion fencing. The approved biologist will be on site daily while construction-related activities are taking place in aquatic habitat or within 300 feet of aquatic habitat, and will inspect the project site daily for giant gartersnake prior to construction activities. If a giant gartersnake is encountered, refer to GGS-7. The approved biologist will also train construction personnel on the required avoidance procedures, exclusion fencing, and protocols in the event that a giant gartersnake enters an active construction zone (i.e., outside the buffer zone).

GGS-4 (Giant Gartersnake Habitat Dewatering and Exclusion): If construction activities will occur in giant gartersnake aquatic habitat, aquatic habitat will be dewatered and then remain dry and absent of aquatic prey (e.g., fish and tadpoles) for 15 days prior to initiation of construction activities. If complete dewatering is not possible, the Implementing Entity will be contacted to determine what additional measures may be necessary to minimize effects to giant gartersnake. After aquatic habitat has been dewatered 15 days prior to construction activities, exclusion fencing will be installed extending a minimum of 300 feet into adjacent uplands to isolate both the aquatic and adjacent upland habitat. Exclusionary fencing will be erected 36 inches above ground and buried at least 6 inches below the ground to prevent snakes from attempting to move under the fence into the construction area. In addition, high-visibility fencing will be erected to identify the construction limits and to protect adjacent habitat from encroachment of personnel and equipment. Giant gartersnake habitat outside construction fencing will be avoided by all construction personnel. The fencing and the work area will be inspected by the approved biologist to ensure that the fencing is intact and that no snakes have entered the work area before the start of each work day. The fencing will be maintained by the contractor until completion of the project. If giant gartersnake is encountered, refer to GGS-7, below.

GGS-5 (Avoid Giant Gartersnake Entrapment): If a Covered Activity occurs in giant gartersnake modeled habitat (Figure 3-18), all excavated steep-walled holes and trenches more than 6 inches deep will be covered with plywood (or similar material) or

provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes and trenches will be inspected by the approved biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within giant gartersnake modeled habitat will be inspected for giant gartersnake by the approved biologist prior to being moved. If a giant gartersnake is encountered, refer to GGS-7.

GGS-6 (Erosion Control Materials in Giant Gartersnake Habitat): If erosion control (BMP-2) is implemented within giant gartersnake modeled habitat (Figure 3-18), non-entangling erosion control material will be used to reduce the potential for entrapment. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure snakes are not trapped (no monofilament). Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials.

GGS-7 (Giant Gartersnake Encounter Protocol): If a giant gartersnake is encountered during construction activities, the approved biologist will notify the Wildlife Agencies immediately. Construction activities will be suspended in a 100-foot radius of the animal until the animal leaves the project site on its own volition. If necessary, the approved biologist will notify the Wildlife Agencies to determine the appropriate procedures related to relocation. If the animal is handled, a report will be submitted, including date(s), location(s), habitat description, and any corrective measures taken to protect the giant gartersnake within 1 business day to the Wildlife Agencies. The biologist will report any take of listed species to the U.S. Fish and Wildlife Service immediately. Any worker who inadvertently injures or kills a giant gartersnake or who finds one dead, injured, or entrapped must immediately report the incident to the approved biologist.

GGS-8 (Giant Gartersnake Post-Construction Restoration): After completion of ground-disturbing Covered Activities, the applicant will remove any temporary fill and construction debris and will restore temporarily disturbed areas to pre-project conditions. Restoration work includes such activities as re-vegetating the banks and active channels with a seed mix similar to pre-project conditions. Appropriate methods and plant species used to re-vegetate such areas will be determined on a site-specific basis in consultation with the Implementing Entity. Restoration work may include replanting emergent aquatic vegetation. Refer to the U.S. Fish and Wildlife Service's (USFWS) Guidelines for the Restoration and/or Replacement of Giant Gartersnake Habitat (USFWS 1997), or the most current USFWS guidelines at the time of the

activity. A photo documentation report showing pre- and post-project conditions will be submitted to the Implementing Entity 1 month after implementation of the restoration.

Western Pond Turtle

To avoid direct and indirect effects of Covered Activities on western pond turtle (*Actinemys marmorata*), the following AMMs will be implemented.

WPT-1 (Western Pond Turtle Surveys): If the SSHCP western pond turtle modeled habitat maps (Figure 3-19) show that modeled habitat for western pond turtle is present within a Covered Activity's project footprint or within 300 feet of a project footprint, then an approved biologist will conduct a field investigation to delineate western pond turtle aquatic habitat within the project footprint and within 300 feet of the project footprint. In addition to the SSHCP land cover types shown in Figure 3-19, western pond turtle aquatic habitat includes, but is not limited to, low-gradient streams and creeks, open water, freshwater marsh, and rice fields. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. The Third-Party Project Proponent will map all existing or potential sites and provide those maps to the Local Land Use Permittees and the Implementing Entity. Locations of delineated western pond turtle habitat must also be noted on plans that are submitted to a Local Land Use Permittee. The applicant will use this information to finalize project design. Covered Activities may occur throughout the year as long as western pond turtle habitat is identified and fully avoided. Otherwise, Covered Activities must comply with WPT-2 through WPT-9. See Chapter 10 for the process to conduct and submit survey information.

WPT-2 (Western Pond Turtle Work Window): Maintenance and improvements to existing structures may occur throughout the year as long as western pond turtle habitat is identified and avoided, and movement of equipment is confined to existing roads. Otherwise, construction and ground-disturbing Covered Activities must be conducted outside of western pond turtle's active season. Construction and ground-disturbing activities will be initiated after May 1 and will commence prior to September 15. If it appears that construction activities may go beyond September 15, the appropriate Plan Permittee will contact the Local Land Use Permittee and the Implementing Entity as soon as possible, but not later than September 1, to determine if additional measures are necessary to minimize take.

WPT-3 (Western Pond Turtle Monitoring): If a Covered Activity is occurring in western pond turtle modeled habitat (Figure 3-19), an approved biologist experienced with western pond turtle identification and behavior will monitor the project site, including the

integrity of any exclusion fencing. The approved biologist will be on site daily while construction-related activities are taking place in aquatic habitat or within 300 feet of aquatic habitat, and will inspect the project site daily for western pond turtle prior to construction activities. The approved biologist will also training construction personnel on the required avoidance procedures, exclusion fencing, and protocols in the event that a western pond turtle enters an active construction zone (i.e., outside the buffer zone).

WPT-4 (Western Pond Turtle Habitat Dewatering and Exclusion): If construction activities will occur in western pond turtle aquatic habitat, aquatic habitat for the turtle will be dewatered and then remain dry and absent of aquatic prey (e.g., crustaceans and other aquatic invertebrates) for 15 days prior to the initiation of construction activities. If complete dewatering is not possible, the Implementing Entity will be contacted to determine what additional measures may be necessary to minimize effects to western pond turtle. After aquatic habitat has been dewatered 15 days prior to construction activities, exclusion fencing will be installed extending a minimum of 300 feet into adjacent uplands to isolate both the aquatic and adjacent upland habitat. Exclusionary fencing will be erected 36 inches above ground and buried at least 6 inches below the ground to prevent turtles from attempting to burrow or move under the fence into the construction area. In addition, high-visibility fencing will be erected to identify construction limits and to protect adjacent habitat from encroachment of personnel and equipment. Western pond turtle habitat outside construction fencing will be avoided by all construction personnel. The fencing and work area will be inspected by the approved biologist to ensure that the fencing is intact and that no turtles have entered the work area before the start of each work day. Fencing will be maintained by the contractor until completion of the project. If, after exclusion fencing and dewatering, western pond turtles are found within the project footprint or within 300 feet of the project footprint, the Third-Party Project Proponent will discuss the next best steps with the Implementing Entity and Wildlife Agencies.

WPT-5 (Avoid Western Pond Turtle Entrapment): If a Covered Activity occurs within western pond turtle modeled habitat (Figure 3-19), all excavated steep-walled holes and trenches more than 6 inches deep will be covered with plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes and trenches will be inspected by the approved biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within western pond turtle modeled habitat will be inspected for western pond turtle by the approved biologist prior to being moved.

WPT-6 (Erosion Control Materials in Western Pond Turtle Habitat): If erosion control (BMP-2) is implemented within western pond turtle modeled habitat (Figure 3-19), non-entangling erosion control material will be used to reduce the potential for entrapment. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure that turtles are not trapped (no monofilament). Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials.

WPT-7 (Western Pond Turtle Modeled Habitat Speed Limit): Covered Activity construction and maintenance vehicles will observe a 20-mile-per-hour speed limit within western pond turtle modeled upland habitat (Figure 3-19).

WPT-8 (Western Pond Turtle Encounter Protocol): If a western pond turtle is encountered during construction activities, the approved biologist will notify the Wildlife Agencies immediately. Construction activities will be suspended in a 100-foot radius of the animal until the animal leaves the project site on its own volition. If necessary, the approved biologist will notify the Wildlife Agencies to determine the appropriate procedures related to relocation. If the animal is handled, a report will be submitted, including date(s), location(s), habitat description, and any corrective measures taken to protect the turtle, within 1 business day to the Wildlife Agencies. The biologist will report any take of listed species to the U.S. Fish and Wildlife Service immediately. Any worker who inadvertently injures or kills a western pond turtle or who finds one dead, injured, or entrapped must immediately report the incident to the approved biologist.

WPT-9 (Western Pond Turtle Post-Construction Restoration): After completion of ground-disturbing Covered Activities, the applicant will remove any temporary fill and construction debris and will restore temporarily disturbed areas to pre-project conditions. Restoration work includes such activities as re-vegetating the banks and active channels with a seed mix similar to pre-project conditions. Appropriate methods and plant species used to re-vegetate such areas will be determined on a site-specific basis in consultation with the Implementing Entity. Restoration work may include replanting emergent aquatic vegetation and placing appropriate artificial or natural basking areas in waterways and wetlands. A photo documentation report showing pre- and post-project conditions will be submitted to the Implementing Entity 1 month after implementation of the restoration.

Tricolored Blackbird

To avoid direct and indirect effects of Covered Activities on tricolored blackbird (*Agelaius tricolor*), the following AMMs will be implemented.

TCB-1 (Tricolored Blackbird Surveys): If modeled habitat for tricolored blackbird is present within a Covered Activity's project footprint or within 500 feet of a project footprint, then an approved biologist will conduct a field investigation to determine if existing or potential nesting or foraging sites are present within the project footprint and adjacent areas within 500 feet of the project footprint. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. Within the Plan Area, potential tricolor blackbird nest sites are often associated with freshwater marsh and seasonal wetlands, or in thickets of willow, blackberry, wild rose, thistle, and other thorny vegetation. Tricolored blackbirds are also known to nest in crops associated with dairy farms. Foraging habitat is associated with annual grasslands, wet and dry vernal pools and other seasonal wetlands, agricultural fields (such as large tracts of alfalfa and pastures with continuous haying schedules and recently tilled fields), cattle feedlots, and dairies. The Third-Party Project Proponent will map all existing or potential nesting or foraging sites and provide these maps to the Local Land Use Permittees and Implementing Entity. Nesting sites must also be noted on plans that are submitted to a Local Land Use Permittee. See Chapter 10 for the process to conduct and submit survey information.

TCB-2 (Tricolored Blackbird Pre-Construction Surveys): Pre-construction surveys will be required to determine if active nests are present within a project footprint or within 500 feet of a project footprint if existing or potential nest sites were found during design surveys and construction activities will occur during the breeding season (March 1 through September 15). An approved biologist will conduct pre-construction surveys within 30 days and within 3 days of ground-disturbing activities, and within the proposed project footprint and 500 feet of the proposed project footprint to determine the presence of nesting tricolored blackbird. Pre-construction surveys will be conducted during the breeding season (March 1 through August 31). Surveys conducted in February (to meet pre-construction survey requirements for work starting in March) must be conducted within 14 days and 3 days in advance of ground-disturbing activities. If a nest is present, then TCB-3 and TCB-4 will be implemented. The approved biologist will inform the Land Use Authority Permittee and the Implementing Entity of species locations, and they in turn will notify the Wildlife Agencies.

TCB-3 (Tricolored Blackbird Nest Buffer): If active nests are found within the project footprint or within 500 feet of any project-related Covered Activity, the Third-Party Project Proponent will establish a 500-foot temporary buffer around the active nest until the young have fledged.

TCB-4 (Tricolored Blackbird Nest Buffer Monitoring): If nesting tricolored blackbirds are present within the project footprint or within 500 feet of any project-related Covered

Activity, then an approved biologist experienced with tricolored blackbird behavior will be retained by the Third-Party Project Proponent to monitor the nest throughout the nesting season and to determine when the young have fledged. The approved biologist will be on site daily while construction-related activities are taking place near the disturbance buffer. Work within the nest disturbance buffer will not be permitted. If the approved biologist determines that tricolored blackbirds are exhibiting agitated behavior, construction will cease until the buffer size is increased to a distance necessary to result in no harm or harassment to the nesting tricolored blackbirds. If the biologist determines that the colonies are at risk, a meeting with the Third-Party Project Proponent, Implementing Entity, and Wildlife Agencies will be held to determine the best course of action to avoid nest abandonment or take of individuals. The approved biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a tricolored blackbird flies into an active construction zone (i.e., outside the buffer zone).

TCB-5 (Timing of Pesticide Use and Harvest Timing on Agricultural Preserves): On SSHCP Agricultural Preserves, pesticides (including herbicides) will not be applied from January 1 through July 15.

Swainson's Hawk

To avoid direct and indirect effects of Covered Activities on Swainson's hawk (*Buteo swainsoni*), the following AMMs will be implemented.

SWHA-1 (Swainson's Hawk Surveys): If modeled habitat for Swainson's hawk (Figure 3-25) is present within a Covered Activity's project footprint or within 0.25 mile of a project footprint, then an approved biologist will conduct a survey to determine if existing or potential nesting sites are present within the project footprint and adjacent areas within 0.25 mile of the project footprint. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. Nest sites are often associated with Riparian land cover, but also include lone trees in fields, trees along roadways, and trees around structures. Nest trees may include, but are not limited to, Fremont's cottonwood (*Populus fremontii*), oaks (*Quercus* spp.), willows (*Salix* spp.), walnuts (*Juglans* spp.), eucalyptus (*Eucalyptus* spp.), pines (*Pinus* spp.), and Deodar cedar (*Cedrus deodara*). The Third-Party Project Proponent will map all existing and potential nesting sites and provide these maps to the Local Land Use Permittees and Implementing Entity. Nesting sites must also be noted on plans that are submitted to a Local Land Use Permittee. See Chapter 10 for the process to conduct and submit survey information.

SWHA-2 (Swainson's Hawk Pre-Construction Surveys): Pre-construction surveys will be required to determine if active nests are present within a project footprint or within 0.25 mile of a project footprint if existing or potential nest sites were found during initial surveys and construction activities will occur during the breeding season (March 1 through September 15). An approved biologist will conduct pre-construction surveys within 30 days and 3 days of ground-disturbing activities to determine presence of nesting Swainson's hawk. Pre-construction surveys will be conducted during the breeding season (March 1 through September 15). If a nest is present, then SWHA-3 and SWHA-4 will be implemented. The approved biologist will inform the Land Use Authority Permittee and Implementing Entity of species locations, and they in turn will notify the Wildlife Agencies.

SWHA-3 (Swainson's Hawk Nest Buffer): If active nests are found within the project footprint or within 0.25 mile of any project-related Covered Activity, the Third-Party Project Proponent will establish a 0.25 mile disturbance buffer around the active nest until the young have fledged, with concurrence from the Wildlife Agencies.

SWHA-4 (Swainson's Hawk Nest Buffer Monitoring): If nesting Swainson's hawks are present within the project footprint or within 0.25 mile of any project-related Covered Activity, then an approved biologist experienced with Swainson's hawk behavior will be retained by the Third-Party Project Proponent to monitor the nest throughout the nesting season and to determine when the young have fledged. The approved biologist will be on site daily while construction-related activities are taking place within the buffer. Work within the temporary nest disturbance buffer can occur with the written permission of the Implementing Entity and Wildlife Agencies. If nesting Swainson's hawks begin to exhibit agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, the approved biologist will have the authority to shut down construction activities. If agitated behavior is exhibited, the biologist, Third-Party Project Proponent, Implementing Entity, and Wildlife Agencies will meet to determine the best course of action to avoid nest abandonment or take of individuals. The approved biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a Swainson's hawk flies into an active construction zone (i.e., outside the buffer zone).

Greater Sandhill Crane

To avoid direct and indirect effects of Covered Activities on greater sandhill crane (*Grus canadensis*), the following AMMs will be implemented.

GSC-1 (Greater Sandhill Crane Surveys): If modeled habitat for greater sandhill crane (Figure 3-22) is present within a Covered Activity's project footprint or within 0.5 mile of a project footprint, then an approved biologist will conduct a field investigation to determine if existing or potential roosting sites are present within the project footprint and adjacent areas within 0.5 mile of the project footprint. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. Roosting sites within the Plan Area are often associated with flooded fields, seasonal wetlands, and freshwater marsh. The Third-Party Project Proponent will map all existing or potential roosting sites and provide these maps to the Local Land Use Permittees and Implementing Entity. Roosting sites must also be noted on plans that are submitted to a Local Land Use Permittee. See Chapter 10 for the process to conduct and submit survey information.

GSC-2 (Greater Sandhill Crane Pre-Construction Surveys): Pre-construction surveys will be required to determine if active roosting sites are present within a project footprint or within 0.5 mile of a project footprint if existing or potential roosting sites were found during initial surveys and construction activities will occur when wintering flocks are present within the Plan Area (September 1 through March 15). An approved biologist will conduct pre-construction surveys within 15 days of ground-disturbing activities, and within 0.5 mile of a project footprint, to determine presence of roosting greater sandhill cranes. Pre-construction surveys will be conducted September 1 through March 15, when wintering flocks are present within the Plan Area. If birds are present, then GSC-3, GSC-4, and GSC-5 will be implemented. The approved biologist will inform the Land Use Authority Permittee and Implementing Entity of species locations, and they in turn will notify the Wildlife Agencies.

GSC-3 (Greater Sandhill Crane Roosting Buffer): If active roosting sites are found within the project footprint or within 0.5 mile of any project-related Covered Activity, the Third-Party Project Proponent will establish a 0.5 mile temporary roosting disturbance buffer around the roosting site until the cranes have left.

GSC-4 (Greater Sandhill Crane Visual Barrier): Greater sandhill cranes have low tolerance for human disturbance, and such disturbance has caused cranes to abandon foraging and roosting sites. Repeat disturbance affects their ability to feed and store energy needed for survival. If project-related activities occur within 0.5 mile of a known roosting site as identified by surveys conducted during implementation of GSC-1 or GSC-2, a visual barrier will be constructed.

GSC-5 (Greater Sandhill Crane Roosting Buffer Monitoring): If roosting sites are found within the project footprint or within 0.50 mile of any project-related Covered Activity, an

approved biologist experienced with greater sandhill crane behavior will be retained by the Third-Party Project Proponent to monitor the roosting site throughout the roosting season and to determine when the birds have left. The approved biologist will be on site daily while construction-related activities are taking place within the disturbance buffer. Work within the temporary disturbance buffer can only occur with the written permission of the Implementing Entity and Wildlife Agencies. If greater sandhill cranes are abandoning their roosting and/or forage sites, the approved biologist will have the authority to shut down construction activities. If roost abandonment occurs, the approved biologist, Third-Party Project Proponent, Implementing Entity, and Wildlife Agencies will meet to determine the best course of action to avoid harm and harassment of individuals. The approved biologist will also train construction personnel on the avoidance procedures, buffer zones, and protocols in the event that greater sandhill cranes move into an active construction zone (i.e., outside the buffer zone).

Western Burrowing Owl

To avoid direct and indirect effects of Covered Activities on western burrowing owl (*Athene cunicularia*), the following AMMs will be implemented.

WBO-1 (Western Burrowing Owl Surveys): Surveys within modeled habitat are required for both the breeding and non-breeding season. If the project site falls within modeled habitat, an approved biologist will survey the project site and map all burrows, noting any burrows that may be occupied. Occupied burrows are often (but not always) indicated by tracks, feathers, egg shell fragments, pellets, prey remains, and/or excrement. Surveying and mapping will be conducted by the approved biologist while walking transects throughout the entire project site plus all accessible areas within a 250-foot radius from the project site. The centerline of these transects will be no more than 50 feet apart and will vary in width to account for changes in terrain and vegetation that can preclude complete visual coverage of the area. For example, in hilly terrain with patches of tall grass, transects will be closer together, and in open areas with little vegetation, they can be 50 feet apart. This methodology is consistent with current survey protocols for this species (California Burrowing Owl Consortium 1993). Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. If suitable habitat is identified during the initial survey, and if the project does not fully avoid the habitat, pre-construction surveys will be required. Burrowing owl habitat is fully avoided if project-related activities do not impinge on a 250-foot buffer established by the approved biologist around suitable burrows. See Chapter 10 for the process to conduct and submit survey information.

WBO-2 (Western Burrowing Owl Pre-Construction Surveys): Prior to any Covered Activity ground disturbance, an approved biologist will conduct pre-construction surveys in all areas that were identified as suitable habitat during the initial surveys. The purpose of the pre-construction surveys is to document the presence or absence of burrowing owls on the project site, particularly in areas within 250 feet of construction activities. To maximize the likelihood of detecting owls, the pre-construction survey will last a minimum of 3 hours. The survey will begin 1 hour before sunrise and continue until 2 hours after sunrise (3 hours total), or begin 2 hours before sunset and continue until 1 hour after sunset. Additional time may be required for large project sites. A minimum of two pre-construction surveys will be conducted (if owls are detected on the first survey, a second survey is not needed). All owls observed will be counted and their location will be mapped. Surveys will conclude no more than 2 calendar days prior to construction. Therefore, the Third-Party Project Proponent must begin surveys no more than 4 days prior to construction (2 days of surveying plus up to 2 days between surveys and construction). To avoid last-minute changes in schedule or contracting that may occur if burrowing owls are found, the Third-Party Project Proponent may also conduct a preliminary survey up to 15 days before construction. This preliminary survey may count as the first of the two required surveys as long as the second survey concludes no more than 2 calendar days in advance of construction.

WBO-3 (Burrowing Owl Avoidance): If western burrowing owl or evidence of western burrowing owl is observed on the project site or within 250 feet of the project site during pre-construction surveys, then the following will occur:

During Breeding Season: If the approved biologist finds evidence of western burrowing owls within a project site during the breeding season (February 1 through August 31), all project-related activities will avoid nest sites during the remainder of the breeding season or while the nest remains occupied by adults or young (nest occupation includes individuals or family groups foraging on or near the site following fledging). Avoidance is establishment of a minimum 250-foot buffer zone around nests. Construction and other project-related activities may occur outside of the 250-foot buffer zone. Construction and other project-related activities may be allowed inside of the 250-foot non-disturbance buffer during the breeding season if the nest is not disturbed, and the Third-Party Project Proponent develops an avoidance, minimization, and monitoring plan that is approved by the Implementing Entity and Wildlife Agencies prior to project construction based on the following criteria:

- The Implementing Entity and Wildlife Agencies approve of the avoidance and minimization plan provided by the project applicant.

- An approved biologist monitors the owls for at least 3 days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).
- The same approved biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.

If there is any change in owl nesting and foraging behavior as a result of construction activities, the approved biologist will have authority to shut down activities within the 250-foot buffer. Construction cannot resume within the 250-foot buffer until any owls present are no longer affected by nearby construction activities, and with written concurrence from the Wildlife Agencies.

If monitoring by the approved biologist indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use, the non-disturbance buffer zone may be removed if approved by the Wildlife Agencies. The approved biologist will excavate the burrow in accordance with the latest California Department of Fish and Wildlife guidelines for burrowing owl to prevent reoccupation after receiving approval from the Wildlife Agencies.

The Implementing Entity and Wildlife Agencies will respond to a request from the Third-Party Project Proponent to review the proposed construction monitoring plan within 21 days.

During Non-Breeding Season: During the non-breeding season (September 1 through January 31), the approved biologist will establish a minimum 250-foot non-disturbance buffer around occupied burrows. Construction activities outside of this 250-foot buffer will be allowed. Construction activities within the non-disturbance buffer will be allowed if the following criteria are met to prevent owls from abandoning over-wintering sites:

- An approved biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).
- The same approved biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.
- If there is any change in owl foraging behavior as a result of construction activities, the approved biologist will have authority to shut down activities within the 250-foot buffer.
- If the owls are gone for at least 1 week, the Third-Party Project Proponent may request approval from the Implementing Entity and Wildlife Agencies that an approved biologist excavate usable burrows and install one-way exclusionary

devices to prevent owls from re-occupying the site. After all usable burrows are excavated, the buffer zone will be removed and construction may continue.

Monitoring must continue as described above for the non-breeding season as long as the burrow remains active.

WBO-4 (Burrowing Owl Construction Monitoring): During construction of Covered Activities, 250-foot construction buffer zones will be established and maintained around any occupied burrow. An approved biologist will monitor the site to ensure that buffers are enforced and owls are not disturbed. The approved biologist will also train construction personnel on avoidance procedures, buffer zones, and protocols in the event that a burrowing owl flies into an active construction zone.

WBO-5 (Burrowing Owl Passive Relocation): Passive relocation is not allowed without the express written approval of the Wildlife Agencies. Passive owl relocation may be allowed on a case-by-case basis on project sites during the non-breeding season (September 1 through January 31) with the written approval of the Wildlife Agencies if the other measures described in this condition preclude work from continuing. Passive relocation must be done in accordance with the latest California Department of Fish and Wildlife guidelines for burrowing owl. Passive relocation will only be proposed if the burrow needing to be removed or with the potential to collapse from construction activities is the result of a Covered Activity. If passive relocation is approved by the Wildlife Agencies, an approved biologist can passively exclude birds from their burrows during the non-breeding season by installing one-way doors in burrow entrances. These doors will be in place for 48 hours to ensure that owls have left the burrow, and then the biologist will excavate the burrow to prevent reoccupation. Burrows will be excavated using hand tools only. During excavation, an escape route will be maintained at all times. This may include inserting an artificial structure into the burrow to avoid having materials collapse into the burrow and trap owls inside. Other methods of passive relocation, based on best available science, may be approved by the Wildlife Agencies over the 50-year Permit Term.

WBO-6 (Burrowing Owl Timing of Maintenance Activities): All activities adjacent to existing or planned Preserves, Preserve Setbacks, or Stream Setback areas will be seasonally timed, when safety permits, to avoid or minimize adverse effects on occupied burrows.

WBO-7 (Rodent Control): Rodent control will be allowed only in developed portions of a Covered Activity project site within western burrowing owl modeled habitat. Where rodent control is allowed, the method of rodent control will comply with the methods of

rodent control discussed in the 4(d) Rule published in the U.S. Fish and Wildlife Service's (2004) final listing rule for tiger salamander.

Covered Raptor Species

To avoid direct and indirect effects of Covered Activities on covered raptor species, the following AMMs will be implemented. This measure applies to Cooper's hawk (*Accipiter cooperii*), loggerhead shrike (*Lanius ludovicianus*), northern harrier (*Circus cyaneus*), and white-tailed kite (*Elanus leucurus*). The following AMMs do not apply to ferruginous hawk (*Buteo regalis*), as they do not nest in the Plan Area. The following AMMs also do not apply to Swainson's hawk or burrowing owl, as specific AMMs have been developed for these covered raptor species.

RAPTOR-1 (Raptor Surveys): If modeled habitat for a covered raptor species (Figures 3-20, 3-23, 3-24, or 3-28) is present within a Covered Activity's project footprint or within 0.25 mile of a project footprint, then an approved biologist will conduct a field investigation to determine if existing or potential nesting sites are present within the project footprint and adjacent areas within 0.25 mile of the project footprint. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. The Third-Party Project Proponent will map all existing or potential nesting sites and provide these maps to the Local Land Use Permittees and Implementing Entity. Nesting sites must also be noted on plans that are submitted to a Local Land Use Permittee. See Chapter 10 for the process to conduct and submit survey information.

RAPTOR-2 (Raptor Pre-Construction Surveys): Pre-construction surveys will be required to determine if active nests are present with a project footprint or within 0.25 mile of a project footprint if existing or potential nest sites are found during initial surveys and construction activities will occur during the raptor breeding season. An approved biologist will conduct pre-construction surveys within 30 days and 3 days of ground-disturbing activities within the proposed project footprint and within 0.25 mile of the proposed project footprint to determine presence of nesting covered raptor species. Pre-construction surveys will be conducted during the raptor breeding season. If a nest is present, then RAPTOR-3 and RAPTOR-4 will be implemented. The approved biologist will inform the Land Use Authority Permittee and Implementing Entity of species locations, and they in turn will notify the Wildlife Agencies.

RAPTOR-3 (Raptor Nest/Roost Buffer): If active nests are found within the project footprint or within 0.25 mile of any project-related Covered Activity, the Third-Party Project

Proponent will establish a 0.25 mile temporary nest disturbance buffer around the active nest until the young have fledged.

RAPTOR-4 (Raptor Nest/Roost Buffer Monitoring): If project-related Covered Activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then an approved biologist experienced with raptor behavior will be retained by the Third-Party Project Proponent to monitor the nest throughout the nesting season and to determine when the young have fledged. The approved biologist will be on site daily while construction-related activities are taking place within the disturbance buffer. Work within the temporary nest disturbance buffer can occur with the written permission of the Implementing Entity and Wildlife Agencies. If nesting raptors begin to exhibit agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, the approved biologist/monitor will have the authority to shut down construction activities. If agitated behavior is exhibited, the biologist, Third-Party Project Proponent, Implementing Entity, and Wildlife Agencies will meet to determine the best course of action to avoid nest abandonment or take of individuals. The approved biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a covered raptor species flies into an active construction zone (i.e., outside the buffer zone).

Western Red Bat

To avoid direct and indirect effects of Covered Activities on western red bat (*Lasiurus blossevillii*), the following AMMs will be implemented.

BAT-1 (Winter Hibernaculum Surveys): If modeled habitat (Figure 3-30) for western red bat is present within 300 feet of a Covered Activity's project footprint, then an approved biologist will conduct a field investigation of the project footprint and adjacent areas within 300 feet of a project footprint to determine if a potential winter hibernaculum is present, and to identify and map potential hibernaculum sites. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. If potential hibernaculum sites are found, the Third-Party Project Proponent will note their locations on project designs and will design the project to avoid all areas within a 300-foot buffer around the potential hibernaculum sites. Winter hibernaculum habitat is fully avoided if project-related activities do not impinge on a 300-foot buffer established by the approved biologist around an existing or potential winter hibernaculum site. See Chapter 10 for the process to conduct and submit survey information.

BAT-2 (Winter Hibernaculum Pre-Construction Surveys): If the Third-Party Project Proponent elects not to avoid potential winter hibernaculum sites within the project footprint plus a 300-foot buffer, additional surveys are required. Prior to any ground disturbance related to Covered Activities, an approved biologist will conduct a pre-construction survey within 3 days of ground-disturbing activities within the project footprint and 300 feet of the project footprint to determine the presence of winter hibernaculum sites. Pre-construction surveys will be conducted during the winter hibernaculum season (November 1 through March 31). If a winter hibernaculum is present, then BAT-3 and BAT-4 will be implemented. The approved biologist will inform the Land Use Authority Permittee and Implementing Entity of species locations, and they in turn will notify the Wildlife Agencies.

BAT-3 (Winter Hibernaculum Buffer): If active winter hibernaculum sites are found within the project footprint or within 300 feet of the project footprint, the Third-Party Project Proponent will establish a 300-foot temporary disturbance buffer around the active winter hibernaculum site until bats have vacated the hibernaculum and the Implementing Entity and Wildlife Agencies concur.

BAT-4 (Bat Eviction Methods): An approved biologist will determine if non-maternity and non-hibernaculum day and night roosts are present on the project site. If necessary, an approved biologist will use safe eviction methods to remove bats if direct impacts to non-maternity and non-hibernaculum day and night roosts cannot be avoided. If a winter hibernaculum site is present, Covered Activities will not occur until the hibernaculum is vacated, or, if necessary, safely evicted using methods acceptable to the Wildlife Agencies.

Appendix D

Air Quality, Greenhouse Gas, and Energy Modeling

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Residences at Capital Center

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	14.60	1000sqft	0.34	14,600.00	0
High Turnover (Sit Down Restaurant)	5.00	1000sqft	0.72	5,000.00	0
Apartments Mid Rise	240.00	Dwelling Unit	8.71	240,000.00	641
Condo/Townhouse	177.00	Dwelling Unit	9.93	177,000.00	473

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2026
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	186.1	**CH4 Intensity (lb/MWhr)**	0.012	**N2O Intensity (lb/MWhr)**	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SMUD Intentisty Factor update accoding to 2030 Carbon Neutrality goal

Land Use - Project specific acreage

Construction Phase - 36-month construction schedule

Grading - 22-acres to be graded

Architectural Coating - SMAQMD Rule 442

Vehicle Trips - Trip adjustments

Area Coating - SMAQMD Rule 442

Energy Use - No residential natural gas use. NG use for pool/spa and 2 outdoor fire pits- see supplemental calcs.

Construction Off-road Equipment Mitigation - SMAQMD Construciton BMPs

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	34.00
tblConstructionPhase	NumDays	300.00	634.00
tblConstructionPhase	NumDays	30.00	60.00
tblConstructionPhase	NumDays	20.00	34.00
tblConstructionPhase	NumDays	10.00	17.00
tblEnergyUse	NT24E	3,054.10	3,842.08
tblEnergyUse	NT24E	3,795.01	8,621.49
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	NT24NG	12.42	56.02
tblEnergyUse	T24E	98.18	2,071.56
tblEnergyUse	T24E	80.14	4,826.48
tblEnergyUse	T24E	3.05	9.84
tblEnergyUse	T24E	7.86	25.18
tblEnergyUse	T24NG	6,729.23	0.00
tblEnergyUse	T24NG	16,185.01	0.00
tblEnergyUse	T24NG	23.15	0.00
tblEnergyUse	T24NG	59.07	0.00
tblGrading	AcresOfGrading	180.00	22.00
tblGrading	AcresOfGrading	25.50	22.00
tblLandUse	LotAcreage	0.11	0.72

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	6.32	8.71
tblLandUse	LotAcreage	11.06	9.93
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.012
tblProjectCharacteristics	CO2IntensityFactor	357.98	186.1
tblProjectCharacteristics	N2OIntensityFactor	0.004	0.002
tblVehicleTrips	CC_TL	5.00	0.00
tblVehicleTrips	CC_TL	5.00	4.00
tblVehicleTrips	CC_TTP	64.10	0.00
tblVehicleTrips	CNW_TL	6.50	0.00
tblVehicleTrips	CNW_TL	6.50	3.30
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	10.00	0.00
tblVehicleTrips	CW_TL	10.00	5.00
tblVehicleTrips	CW_TTP	16.90	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	HO_TL	6.50	3.38
tblVehicleTrips	HO_TL	6.50	3.30
tblVehicleTrips	HS_TL	5.00	4.00
tblVehicleTrips	HS_TL	5.00	4.00
tblVehicleTrips	HW_TL	10.00	5.00
tblVehicleTrips	HW_TL	10.00	5.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	52.00	0.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	ST_TR	4.91	4.58
tblVehicleTrips	ST_TR	8.14	6.84
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	122.40	182.21
tblVehicleTrips	SU_TR	4.09	4.58
tblVehicleTrips	SU_TR	6.28	6.84
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	142.64	182.21
tblVehicleTrips	WD_TR	5.44	4.58
tblVehicleTrips	WD_TR	7.32	6.84
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	112.18	182.21

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1836	1.7614	1.4695	3.1700e-003	0.4052	0.0768	0.4819	0.1990	0.0709	0.2699	0.0000	280.8540	280.8540	0.0729	3.2900e-003	283.6574
2023	0.3278	2.2455	3.1399	7.2400e-003	0.3316	0.0942	0.4257	0.0890	0.0886	0.1776	0.0000	653.7531	653.7531	0.0820	0.0238	662.8801
2024	0.3092	2.1255	3.0857	7.1900e-003	0.3341	0.0835	0.4176	0.0897	0.0785	0.1682	0.0000	650.6718	650.6718	0.0815	0.0232	659.6107
2025	1.8029	0.7658	1.2146	2.6500e-003	0.1104	0.0298	0.1401	0.0296	0.0279	0.0575	0.0000	239.5404	239.5404	0.0357	6.9600e-003	242.5057
Maximum	**1.8029**	**2.2455**	**3.1399**	**7.2400e-003**	**0.4052**	**0.0942**	**0.4819**	**0.1990**	**0.0886**	**0.2699**	**0.0000**	**653.7531**	**653.7531**	**0.0820**	**0.0238**	**662.8801**

ITEM 11.1 **ATTACHMENT 1**

Residences at Capital Center - Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1836	1.7614	1.4695	3.1700e-003	0.2049	0.0768	0.2816	0.0957	0.0709	0.1666	0.0000	280.8538	280.8538	0.0729	3.2900e-003	283.6571
2023	0.3278	2.2455	3.1399	7.2400e-003	0.3063	0.0942	0.4005	0.0828	0.0886	0.1714	0.0000	653.7527	653.7527	0.0820	0.0238	662.8797
2024	0.3092	2.1255	3.0857	7.1900e-003	0.3086	0.0835	0.3921	0.0835	0.0785	0.1620	0.0000	650.6714	650.6714	0.0815	0.0232	659.6104
2025	1.8029	0.7658	1.2146	2.6500e-003	0.1019	0.0298	0.1317	0.0275	0.0279	0.0555	0.0000	239.5402	239.5402	0.0357	6.9600e-003	242.5055
Maximum	**1.8029**	**2.2455**	**3.1399**	**7.2400e-003**	**0.3086**	**0.0942**	**0.4005**	**0.0957**	**0.0886**	**0.1714**	**0.0000**	**653.7527**	**653.7527**	**0.0820**	**0.0238**	**662.8797**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**21.96**	**0.00**	**17.71**	**28.93**	**0.00**	**17.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**8-1-2022**	**10-31-2022**	1.3478	1.3478
2	**11-1-2022**	**1-31-2023**	0.8089	0.8089
3	**2-1-2023**	**4-30-2023**	0.6323	0.6323
4	**5-1-2023**	**7-31-2023**	0.6501	0.6501
5	**8-1-2023**	**10-31-2023**	0.6519	0.6519
6	**11-1-2023**	**1-31-2024**	0.6418	0.6418
7	**2-1-2024**	**4-30-2024**	0.6003	0.6003
8	**5-1-2024**	**7-31-2024**	0.6103	0.6103

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

9	**8-1-2024**	**10-31-2024**	0.6120	0.6120
10	**11-1-2024**	**1-31-2025**	0.6016	0.6016
11	**2-1-2025**	**4-30-2025**	0.5294	0.5294
12	**5-1-2025**	**7-31-2025**	1.7894	1.7894
		Highest	1.7894	1.7894

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.0036	0.0495	4.2966	2.3000e-004		0.0238	0.0238		0.0238	0.0238	0.0000	7.0251	7.0251	6.7300e-003	0.0000	7.1933
Energy	7.5900e-003	0.0690	0.0580	4.1000e-004		5.2500e-003	5.2500e-003		5.2500e-003	5.2500e-003	0.0000	477.0054	477.0054	0.0274	5.7000e-003	479.3867
Mobile	1.1741	1.2277	8.9936	0.0166	1.7920	0.0136	1.8057	0.4790	0.0127	0.4917	0.0000	1,586.2106	1,586.2106	0.1288	0.0875	1,615.5101
Waste						0.0000	0.0000		0.0000	0.0000	73.3447	0.0000	73.3447	4.3346	0.0000	181.7084
Water						0.0000	0.0000		0.0000	0.0000	10.6966	17.9745	28.6711	0.0380	0.0235	36.6100
Total	**3.1853**	**1.3462**	**13.3482**	**0.0173**	**1.7920**	**0.0427**	**1.8347**	**0.4790**	**0.0418**	**0.5208**	**84.0413**	**2,088.2156**	**2,172.2568**	**4.5354**	**0.1167**	**2,320.4085**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.0036	0.0495	4.2966	2.3000e-004		0.0238	0.0238		0.0238	0.0238	0.0000	7.0251	7.0251	6.7300e-003	0.0000	7.1933
Energy	7.5900e-003	0.0690	0.0580	4.1000e-004		5.2500e-003	5.2500e-003		5.2500e-003	5.2500e-003	0.0000	477.0054	477.0054	0.0274	5.7000e-003	479.3867
Mobile	1.1741	1.2277	8.9936	0.0166	1.7920	0.0136	1.8057	0.4790	0.0127	0.4917	0.0000	1,586.2106	1,586.2106	0.1288	0.0875	1,615.5101
Waste						0.0000	0.0000		0.0000	0.0000	73.3447	0.0000	73.3447	4.3346	0.0000	181.7084
Water						0.0000	0.0000		0.0000	0.0000	10.6966	17.9745	28.6711	0.0380	0.0235	36.6100
Total	**3.1853**	**1.3462**	**13.3482**	**0.0173**	**1.7920**	**0.0427**	**1.8347**	**0.4790**	**0.0418**	**0.5208**	**84.0413**	**2,088.2156**	**2,172.2568**	**4.5354**	**0.1167**	**2,320.4085**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2022	8/23/2022	5	17	
2	Grading	Grading	8/24/2022	11/15/2022	5	60	
3	Building Construction	Building Construction	11/16/2022	4/21/2025	5	634	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	4/22/2025	6/6/2025	5	34	
5	Architectural Coating	Architectural Coating	6/9/2025	7/24/2025	5	34	

Acres of Grading (Site Preparation Phase): 22

Acres of Grading (Grading Phase): 22

Acres of Paving: 0

Residential Indoor: 844,425; Residential Outdoor: 281,475; Non-Residential Indoor: 32,775; Non-Residential Outdoor: 10,925; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	309.00	48.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	62.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1652	0.0000	0.1652	0.0857	0.0000	0.0857	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0270	0.2812	0.1674	3.2000e-004		0.0137	0.0137		0.0126	0.0126	0.0000	28.4235	28.4235	9.1900e-003	0.0000	28.6533
Total	**0.0270**	**0.2812**	**0.1674**	**3.2000e-004**	**0.1652**	**0.0137**	**0.1789**	**0.0857**	**0.0126**	**0.0983**	**0.0000**	**28.4235**	**28.4235**	**9.1900e-003**	**0.0000**	**28.6533**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.1000e-004	3.8600e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.9253	0.9253	3.0000e-005	3.0000e-005	0.9344
Total	**4.7000e-004**	**3.1000e-004**	**3.8600e-003**	**1.0000e-005**	**1.1200e-003**	**1.0000e-005**	**1.1300e-003**	**3.0000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.9253**	**0.9253**	**3.0000e-005**	**3.0000e-005**	**0.9344**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0744	0.0000	0.0744	0.0386	0.0000	0.0386	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0270	0.2812	0.1674	3.2000e-004		0.0137	0.0137		0.0126	0.0126	0.0000	28.4235	28.4235	9.1900e-003	0.0000	28.6533
Total	**0.0270**	**0.2812**	**0.1674**	**3.2000e-004**	**0.0744**	**0.0137**	**0.0881**	**0.0386**	**0.0126**	**0.0512**	**0.0000**	**28.4235**	**28.4235**	**9.1900e-003**	**0.0000**	**28.6533**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.1000e-004	3.8600e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0400e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.9253	0.9253	3.0000e-005	3.0000e-005	0.9344
Total	**4.7000e-004**	**3.1000e-004**	**3.8600e-003**	**1.0000e-005**	**1.0400e-003**	**1.0000e-005**	**1.0400e-003**	**2.8000e-004**	**1.0000e-005**	**2.8000e-004**	**0.0000**	**0.9253**	**0.9253**	**3.0000e-005**	**3.0000e-005**	**0.9344**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1923	0.0000	0.1923	0.1006	0.0000	0.1006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1087	1.1653	0.8713	1.8600e-003		0.0491	0.0491		0.0451	0.0451	0.0000	163.6038	163.6038	0.0529	0.0000	164.9266
Total	**0.1087**	**1.1653**	**0.8713**	**1.8600e-003**	**0.1923**	**0.0491**	**0.2414**	**0.1006**	**0.0451**	**0.1457**	**0.0000**	**163.6038**	**163.6038**	**0.0529**	**0.0000**	**164.9266**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8500e-003	1.2000e-003	0.0151	4.0000e-005	4.4100e-003	2.0000e-005	4.4300e-003	1.1700e-003	2.0000e-005	1.1900e-003	0.0000	3.6286	3.6286	1.2000e-004	1.1000e-004	3.6643
Total	**1.8500e-003**	**1.2000e-003**	**0.0151**	**4.0000e-005**	**4.4100e-003**	**2.0000e-005**	**4.4300e-003**	**1.1700e-003**	**2.0000e-005**	**1.1900e-003**	**0.0000**	**3.6286**	**3.6286**	**1.2000e-004**	**1.1000e-004**	**3.6643**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0866	0.0000	0.0866	0.0453	0.0000	0.0453	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1087	1.1653	0.8712	1.8600e-003		0.0491	0.0491		0.0451	0.0451	0.0000	163.6036	163.6036	0.0529	0.0000	164.9264
Total	**0.1087**	**1.1653**	**0.8712**	**1.8600e-003**	**0.0866**	**0.0491**	**0.1356**	**0.0453**	**0.0451**	**0.0904**	**0.0000**	**163.6036**	**163.6036**	**0.0529**	**0.0000**	**164.9264**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8500e-003	1.2000e-003	0.0151	4.0000e-005	4.0600e-003	2.0000e-005	4.0900e-003	1.0900e-003	2.0000e-005	1.1100e-003	0.0000	3.6286	3.6286	1.2000e-004	1.1000e-004	3.6643
Total	**1.8500e-003**	**1.2000e-003**	**0.0151**	**4.0000e-005**	**4.0600e-003**	**2.0000e-005**	**4.0900e-003**	**1.0900e-003**	**2.0000e-005**	**1.1100e-003**	**0.0000**	**3.6286**	**3.6286**	**1.2000e-004**	**1.1000e-004**	**3.6643**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0282	0.2577	0.2700	4.4000e-004		0.0134	0.0134		0.0126	0.0126	0.0000	38.2347	38.2347	9.1600e-003	0.0000	38.4637
Total	**0.0282**	**0.2577**	**0.2700**	**4.4000e-004**		**0.0134**	**0.0134**		**0.0126**	**0.0126**	**0.0000**	**38.2347**	**38.2347**	**9.1600e-003**	**0.0000**	**38.4637**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6900e-003	0.0455	0.0132	1.6000e-004	4.6400e-003	4.2000e-004	5.0600e-003	1.3400e-003	4.0000e-004	1.7400e-003	0.0000	15.2038	15.2038	4.0000e-004	2.2300e-003	15.8780
Worker	0.0157	0.0102	0.1286	3.3000e-004	0.0375	2.1000e-004	0.0377	9.9600e-003	1.9000e-004	0.0102	0.0000	30.8343	30.8343	1.0500e-003	9.3000e-004	31.1372
Total	**0.0174**	**0.0557**	**0.1418**	**4.9000e-004**	**0.0421**	**6.3000e-004**	**0.0427**	**0.0113**	**5.9000e-004**	**0.0119**	**0.0000**	**46.0381**	**46.0381**	**1.4500e-003**	**3.1600e-003**	**47.0151**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0282	0.2577	0.2700	4.4000e-004		0.0134	0.0134		0.0126	0.0126	0.0000	38.2346	38.2346	9.1600e-003	0.0000	38.4636
Total	**0.0282**	**0.2577**	**0.2700**	**4.4000e-004**		**0.0134**	**0.0134**		**0.0126**	**0.0126**	**0.0000**	**38.2346**	**38.2346**	**9.1600e-003**	**0.0000**	**38.4636**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6900e-003	0.0455	0.0132	1.6000e-004	4.3400e-003	4.2000e-004	4.7600e-003	1.2700e-003	4.0000e-004	1.6700e-003	0.0000	15.2038	15.2038	4.0000e-004	2.2300e-003	15.8780
Worker	0.0157	0.0102	0.1286	3.3000e-004	0.0345	2.1000e-004	0.0347	9.2400e-003	1.9000e-004	9.4400e-003	0.0000	30.8343	30.8343	1.0500e-003	9.3000e-004	31.1372
Total	**0.0174**	**0.0557**	**0.1418**	**4.9000e-004**	**0.0389**	**6.3000e-004**	**0.0395**	**0.0105**	**5.9000e-004**	**0.0111**	**0.0000**	**46.0381**	**46.0381**	**1.4500e-003**	**3.1600e-003**	**47.0151**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.1300e-003	0.3042	0.0917	1.1900e-003	0.0365	1.6200e-003	0.0382	0.0106	1.5500e-003	0.0121	0.0000	115.7328	115.7328	2.8500e-003	0.0170	120.8647
Worker	0.1152	0.0713	0.9365	2.5500e-003	0.2950	1.5800e-003	0.2966	0.0785	1.4500e-003	0.0799	0.0000	236.6741	236.6741	7.4900e-003	6.7600e-003	238.8771
Total	**0.1234**	**0.3754**	**1.0282**	**3.7400e-003**	**0.3316**	**3.2000e-003**	**0.3348**	**0.0890**	**3.0000e-003**	**0.0920**	**0.0000**	**352.4069**	**352.4069**	**0.0103**	**0.0237**	**359.7418**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.1300e-003	0.3042	0.0917	1.1900e-003	0.0342	1.6200e-003	0.0358	9.9900e-003	1.5500e-003	0.0115	0.0000	115.7328	115.7328	2.8500e-003	0.0170	120.8647
Worker	0.1152	0.0713	0.9365	2.5500e-003	0.2721	1.5800e-003	0.2737	0.0728	1.4500e-003	0.0743	0.0000	236.6741	236.6741	7.4900e-003	6.7600e-003	238.8771
Total	**0.1234**	**0.3754**	**1.0282**	**3.7400e-003**	**0.3063**	**3.2000e-003**	**0.3095**	**0.0828**	**3.0000e-003**	**0.0858**	**0.0000**	**352.4069**	**352.4069**	**0.0103**	**0.0237**	**359.7418**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.8400e-003	0.3004	0.0895	1.1800e-003	0.0368	1.6100e-003	0.0384	0.0106	1.5400e-003	0.0122	0.0000	114.4082	114.4082	2.8000e-003	0.0168	119.4917
Worker	0.1086	0.0639	0.8783	2.4800e-003	0.2973	1.5100e-003	0.2988	0.0791	1.3900e-003	0.0805	0.0000	232.5413	232.5413	6.8400e-003	6.3400e-003	234.6011
Total	**0.1164**	**0.3644**	**0.9678**	**3.6600e-003**	**0.3341**	**3.1200e-003**	**0.3372**	**0.0897**	**2.9300e-003**	**0.0926**	**0.0000**	**346.9495**	**346.9495**	**9.6400e-003**	**0.0232**	**354.0929**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.8400e-003	0.3004	0.0895	1.1800e-003	0.0345	1.6100e-003	0.0361	0.0101	1.5400e-003	0.0116	0.0000	114.4082	114.4082	2.8000e-003	0.0168	119.4917
Worker	0.1086	0.0639	0.8783	2.4800e-003	0.2742	1.5100e-003	0.2757	0.0734	1.3900e-003	0.0748	0.0000	232.5413	232.5413	6.8400e-003	6.3400e-003	234.6011
Total	**0.1164**	**0.3644**	**0.9678**	**3.6600e-003**	**0.3086**	**3.1200e-003**	**0.3118**	**0.0835**	**2.9300e-003**	**0.0864**	**0.0000**	**346.9495**	**346.9495**	**9.6400e-003**	**0.0232**	**354.0929**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0540	0.4926	0.6353	1.0600e-003		0.0208	0.0208		0.0196	0.0196	0.0000	91.6082	91.6082	0.0215	0.0000	92.1465
Total	**0.0540**	**0.4926**	**0.6353**	**1.0600e-003**		**0.0208**	**0.0208**		**0.0196**	**0.0196**	**0.0000**	**91.6082**	**91.6082**	**0.0215**	**0.0000**	**92.1465**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2800e-003	0.0888	0.0264	3.5000e-004	0.0111	4.8000e-004	0.0116	3.2100e-003	4.5000e-004	3.6600e-003	0.0000	33.7992	33.7992	8.3000e-004	4.9800e-003	35.3037
Worker	0.0307	0.0173	0.2477	7.2000e-004	0.0896	4.4000e-004	0.0901	0.0238	4.0000e-004	0.0242	0.0000	68.4217	68.4217	1.8700e-003	1.7900e-003	69.0009
Total	**0.0330**	**0.1061**	**0.2741**	**1.0700e-003**	**0.1007**	**9.2000e-004**	**0.1017**	**0.0271**	**8.5000e-004**	**0.0279**	**0.0000**	**102.2209**	**102.2209**	**2.7000e-003**	**6.7700e-003**	**104.3046**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0540	0.4926	0.6353	1.0600e-003		0.0208	0.0208		0.0196	0.0196	0.0000	91.6081	91.6081	0.0215	0.0000	92.1464
Total	**0.0540**	**0.4926**	**0.6353**	**1.0600e-003**		**0.0208**	**0.0208**		**0.0196**	**0.0196**	**0.0000**	**91.6081**	**91.6081**	**0.0215**	**0.0000**	**92.1464**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2800e-003	0.0888	0.0264	3.5000e-004	0.0104	4.8000e-004	0.0109	3.0300e-003	4.5000e-004	3.4900e-003	0.0000	33.7992	33.7992	8.3000e-004	4.9800e-003	35.3037
Worker	0.0307	0.0173	0.2477	7.2000e-004	0.0827	4.4000e-004	0.0831	0.0221	4.0000e-004	0.0225	0.0000	68.4217	68.4217	1.8700e-003	1.7900e-003	69.0009
Total	**0.0330**	**0.1061**	**0.2741**	**1.0700e-003**	**0.0931**	**9.2000e-004**	**0.0940**	**0.0252**	**8.5000e-004**	**0.0260**	**0.0000**	**102.2209**	**102.2209**	**2.7000e-003**	**6.7700e-003**	**104.3046**

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0156	0.1459	0.2478	3.9000e-004		7.1100e-003	7.1100e-003		6.5500e-003	6.5500e-003	0.0000	34.0327	34.0327	0.0110	0.0000	34.3079
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0156**	**0.1459**	**0.2478**	**3.9000e-004**		**7.1100e-003**	**7.1100e-003**		**6.5500e-003**	**6.5500e-003**	**0.0000**	**34.0327**	**34.0327**	**0.0110**	**0.0000**	**34.3079**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	3.6000e-004	5.1800e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.4295	1.4295	4.0000e-005	4.0000e-005	1.4416
Total	**6.4000e-004**	**3.6000e-004**	**5.1800e-003**	**2.0000e-005**	**1.8700e-003**	**1.0000e-005**	**1.8800e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.4295**	**1.4295**	**4.0000e-005**	**4.0000e-005**	**1.4416**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0156	0.1459	0.2478	3.9000e-004		7.1100e-003	7.1100e-003		6.5500e-003	6.5500e-003	0.0000	34.0327	34.0327	0.0110	0.0000	34.3079
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0156**	**0.1459**	**0.2478**	**3.9000e-004**		**7.1100e-003**	**7.1100e-003**		**6.5500e-003**	**6.5500e-003**	**0.0000**	**34.0327**	**34.0327**	**0.0110**	**0.0000**	**34.3079**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	3.6000e-004	5.1800e-003	2.0000e-005	1.7300e-003	1.0000e-005	1.7400e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.4295	1.4295	4.0000e-005	4.0000e-005	1.4416
Total	**6.4000e-004**	**3.6000e-004**	**5.1800e-003**	**2.0000e-005**	**1.7300e-003**	**1.0000e-005**	**1.7400e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.4295**	**1.4295**	**4.0000e-005**	**4.0000e-005**	**1.4416**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6941					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0195	0.0308	5.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	4.3405	4.3405	2.4000e-004	0.0000	4.3465
Total	**1.6970**	**0.0195**	**0.0308**	**5.0000e-005**		**8.8000e-004**	**8.8000e-004**		**8.8000e-004**	**8.8000e-004**	**0.0000**	**4.3405**	**4.3405**	**2.4000e-004**	**0.0000**	**4.3465**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6500e-003	1.4900e-003	0.0214	6.0000e-005	7.7400e-003	4.0000e-005	7.7800e-003	2.0600e-003	3.0000e-005	2.0900e-003	0.0000	5.9085	5.9085	1.6000e-004	1.5000e-004	5.9585
Total	**2.6500e-003**	**1.4900e-003**	**0.0214**	**6.0000e-005**	**7.7400e-003**	**4.0000e-005**	**7.7800e-003**	**2.0600e-003**	**3.0000e-005**	**2.0900e-003**	**0.0000**	**5.9085**	**5.9085**	**1.6000e-004**	**1.5000e-004**	**5.9585**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6941					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0195	0.0308	5.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	4.3405	4.3405	2.4000e-004	0.0000	4.3465
Total	**1.6970**	**0.0195**	**0.0308**	**5.0000e-005**		**8.8000e-004**	**8.8000e-004**		**8.8000e-004**	**8.8000e-004**	**0.0000**	**4.3405**	**4.3405**	**2.4000e-004**	**0.0000**	**4.3465**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6500e-003	1.4900e-003	0.0214	6.0000e-005	7.1400e-003	4.0000e-005	7.1800e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	5.9085	5.9085	1.6000e-004	1.5000e-004	5.9585
Total	**2.6500e-003**	**1.4900e-003**	**0.0214**	**6.0000e-005**	**7.1400e-003**	**4.0000e-005**	**7.1800e-003**	**1.9100e-003**	**3.0000e-005**	**1.9500e-003**	**0.0000**	**5.9085**	**5.9085**	**1.6000e-004**	**1.5000e-004**	**5.9585**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1741	1.2277	8.9936	0.0166	1.7920	0.0136	1.8057	0.4790	0.0127	0.4917	0.0000	1,586.2106	1,586.2106	0.1288	0.0875	1,615.5101
Unmitigated	1.1741	1.2277	8.9936	0.0166	1.7920	0.0136	1.8057	0.4790	0.0127	0.4917	0.0000	1,586.2106	1,586.2106	0.1288	0.0875	1,615.5101

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,099.20	1,099.20	1099.20	1,684,778	1,684,778
Condo/Townhouse	1,210.68	1,210.68	1210.68	1,841,192	1,841,192
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	911.04	911.04	911.04	1,310,549	1,310,549
Total	3,220.92	3,220.92	3,220.92	4,836,520	4,836,520

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	5.00	4.00	3.38	46.50	12.50	41.00	100	0	0
Condo/Townhouse	5.00	4.00	3.30	46.50	12.50	41.00	100	0	0
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	5.00	4.00	3.30	8.50	72.50	19.00	100	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Condo/Townhouse	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Health Club	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
High Turnover (Sit Down Restaurant)	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	401.8642	401.8642	0.0259	4.3200e-003	403.7990
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	401.8642	401.8642	0.0259	4.3200e-003	403.7990
NaturalGas Mitigated	7.5900e-003	0.0690	0.0580	4.1000e-004		5.2500e-003	5.2500e-003		5.2500e-003	5.2500e-003	0.0000	75.1412	75.1412	1.4400e-003	1.3800e-003	75.5877
NaturalGas Unmitigated	7.5900e-003	0.0690	0.0580	4.1000e-004		5.2500e-003	5.2500e-003		5.2500e-003	5.2500e-003	0.0000	75.1412	75.1412	1.4400e-003	1.3800e-003	75.5877

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	817892	4.4100e-003	0.0401	0.0337	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.6458	43.6458	8.4000e-004	8.0000e-004	43.9052
High Turnover (Sit Down Restaurant)	590200	3.1800e-003	0.0289	0.0243	1.7000e-004		2.2000e-003	2.2000e-003		2.2000e-003	2.2000e-003	0.0000	31.4953	31.4953	6.0000e-004	5.8000e-004	31.6825
Total		**7.5900e-003**	**0.0690**	**0.0580**	**4.1000e-004**		**5.2500e-003**	**5.2500e-003**		**5.2500e-003**	**5.2500e-003**	**0.0000**	**75.1412**	**75.1412**	**1.4400e-003**	**1.3800e-003**	**75.5877**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	817892	4.4100e-003	0.0401	0.0337	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.6458	43.6458	8.4000e-004	8.0000e-004	43.9052
High Turnover (Sit Down Restaurant)	590200	3.1800e-003	0.0289	0.0243	1.7000e-004		2.2000e-003	2.2000e-003		2.2000e-003	2.2000e-003	0.0000	31.4953	31.4953	6.0000e-004	5.8000e-004	31.6825
Total		**7.5900e-003**	**0.0690**	**0.0580**	**4.1000e-004**		**5.2500e-003**	**5.2500e-003**		**5.2500e-003**	**5.2500e-003**	**0.0000**	**75.1412**	**75.1412**	**1.4400e-003**	**1.3800e-003**	**75.5877**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.59722e+006	134.8269	8.6900e-003	1.4500e-003	135.4761
Condo/Townhouse	2.55749e+006	215.8864	0.0139	2.3200e-003	216.9258
Health Club	315506	26.6330	1.7200e-003	2.9000e-004	26.7612
High Turnover (Sit Down Restaurant)	290450	24.5179	1.5800e-003	2.6000e-004	24.6360
Total		**401.8642**	**0.0259**	**4.3200e-003**	**403.7991**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.59722e+006	134.8269	8.6900e-003	1.4500e-003	135.4761
Condo/Townhouse	2.55749e+006	215.8864	0.0139	2.3200e-003	216.9258
Health Club	315506	26.6330	1.7200e-003	2.9000e-004	26.7612
High Turnover (Sit Down Restaurant)	290450	24.5179	1.5800e-003	2.6000e-004	24.6360
Total		**401.8642**	**0.0259**	**4.3200e-003**	**403.7991**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.0036	0.0495	4.2966	2.3000e-004		0.0238	0.0238		0.0238	0.0238	0.0000	7.0251	7.0251	6.7300e-003	0.0000	7.1933
Unmitigated	2.0036	0.0495	4.2966	2.3000e-004		0.0238	0.0238		0.0238	0.0238	0.0000	7.0251	7.0251	6.7300e-003	0.0000	7.1933

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1694					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7051					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1290	0.0495	4.2966	2.3000e-004		0.0238	0.0238		0.0238	0.0238	0.0000	7.0251	7.0251	6.7300e-003	0.0000	7.1933
Total	**2.0036**	**0.0495**	**4.2966**	**2.3000e-004**		**0.0238**	**0.0238**		**0.0238**	**0.0238**	**0.0000**	**7.0251**	**7.0251**	**6.7300e-003**	**0.0000**	**7.1933**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1694					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7051					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1290	0.0495	4.2966	2.3000e-004		0.0238	0.0238		0.0238	0.0238	0.0000	7.0251	7.0251	6.7300e-003	0.0000	7.1933
Total	**2.0036**	**0.0495**	**4.2966**	**2.3000e-004**		**0.0238**	**0.0238**		**0.0238**	**0.0238**	**0.0000**	**7.0251**	**7.0251**	**6.7300e-003**	**0.0000**	**7.1933**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	28.6711	0.0380	0.0235	36.6100
Unmitigated	28.6711	0.0380	0.0235	36.6100

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	15.637 / 9.85809	15.0218	0.0197	0.0121	19.1288
Condo/Townhouse	11.5323 / 7.27034	11.0786	0.0145	8.9500e-003	14.1075
Health Club	0.86349 / 0.529236	0.8251	1.0900e-003	6.7000e-004	1.0518
High Turnover (Sit Down Restaurant)	2.20062 / 0.140465	1.7457	2.7400e-003	1.7000e-003	2.3219
Total		**28.6711**	**0.0380**	**0.0235**	**36.6100**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	15.637 / 9.85809	15.0218	0.0197	0.0121	19.1288
Condo/Townhouse	11.5323 / 7.27034	11.0786	0.0145	8.9500e-003	14.1075
Health Club	0.86349 / 0.529236	0.8251	1.0900e-003	6.7000e-004	1.0518
High Turnover (Sit Down Restaurant)	2.20062 / 0.140465	1.7457	2.7400e-003	1.7000e-003	2.3219
Total		**28.6711**	**0.0380**	**0.0235**	**36.6100**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	73.3447	4.3346	0.0000	181.7084
Unmitigated	73.3447	4.3346	0.0000	181.7084

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	110.4	22.4102	1.3244	0.0000	55.5203
Condo/Townhouse	81.42	16.5275	0.9768	0.0000	40.9462
Health Club	83.22	16.8929	0.9983	0.0000	41.8515
High Turnover (Sit Down Restaurant)	86.28	17.5141	1.0351	0.0000	43.3903
Total		**73.3447**	**4.3346**	**0.0000**	**181.7084**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	110.4	22.4102	1.3244	0.0000	55.5203
Condo/Townhouse	81.42	16.5275	0.9768	0.0000	40.9462
Health Club	83.22	16.8929	0.9983	0.0000	41.8515
High Turnover (Sit Down Restaurant)	86.28	17.5141	1.0351	0.0000	43.3903
Total		**73.3447**	**4.3346**	**0.0000**	**181.7084**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Residences at Capital Center

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	14.60	1000sqft	0.34	14,600.00	0
High Turnover (Sit Down Restaurant)	5.00	1000sqft	0.72	5,000.00	0
Apartments Mid Rise	240.00	Dwelling Unit	8.71	240,000.00	641
Condo/Townhouse	177.00	Dwelling Unit	9.93	177,000.00	473

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2026
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	186.1	**CH4 Intensity (lb/MWhr)**	0.012	**N2O Intensity (lb/MWhr)**	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SMUD Intentisty Factor update accoding to 2030 Carbon Neutrality goal

Land Use - Project specific acreage

Construction Phase - 36-month construction schedule

Grading - 22-acres to be graded

Architectural Coating - SMAQMD Rule 442

Vehicle Trips - Trip adjustments

Area Coating - SMAQMD Rule 442

Energy Use - No residential natural gas use. NG use for pool/spa and 2 outdoor fire pits- see supplemental calcs.

Construction Off-road Equipment Mitigation - SMAQMD Construciton BMPs

ITEM 11.1

ATTACHMENT 1

Residences at Capital Center - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	17.00
tblConstructionPhase	NumDays	30.00	60.00
tblConstructionPhase	NumDays	300.00	634.00
tblConstructionPhase	NumDays	20.00	34.00
tblConstructionPhase	NumDays	20.00	34.00
tblEnergyUse	NT24E	3,054.10	3,842.08
tblEnergyUse	NT24E	3,795.01	8,621.49
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	NT24NG	12.42	56.02
tblEnergyUse	T24E	98.18	2,071.56
tblEnergyUse	T24E	80.14	4,826.48
tblEnergyUse	T24E	3.05	9.84
tblEnergyUse	T24E	7.86	25.18
tblEnergyUse	T24NG	6,729.23	0.00
tblEnergyUse	T24NG	16,185.01	0.00
tblEnergyUse	T24NG	23.15	0.00
tblEnergyUse	T24NG	59.07	0.00
tblGrading	AcresOfGrading	180.00	22.00
tblGrading	AcresOfGrading	25.50	22.00
tblLandUse	LotAcreage	0.11	0.72

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	6.32	8.71
tblLandUse	LotAcreage	11.06	9.93
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.012
tblProjectCharacteristics	CO2IntensityFactor	357.98	186.1
tblProjectCharacteristics	N2OIntensityFactor	0.004	0.002
tblVehicleTrips	CC_TL	5.00	0.00
tblVehicleTrips	CC_TL	5.00	4.00
tblVehicleTrips	CC_TTP	64.10	0.00
tblVehicleTrips	CNW_TL	6.50	0.00
tblVehicleTrips	CNW_TL	6.50	3.30
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	10.00	0.00
tblVehicleTrips	CW_TL	10.00	5.00
tblVehicleTrips	CW_TTP	16.90	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	HO_TL	6.50	3.38
tblVehicleTrips	HO_TL	6.50	3.30
tblVehicleTrips	HS_TL	5.00	4.00
tblVehicleTrips	HS_TL	5.00	4.00
tblVehicleTrips	HW_TL	10.00	5.00
tblVehicleTrips	HW_TL	10.00	5.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	52.00	0.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	ST_TR	4.91	4.58
tblVehicleTrips	ST_TR	8.14	6.84
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	122.40	182.21
tblVehicleTrips	SU_TR	4.09	4.58
tblVehicleTrips	SU_TR	6.28	6.84
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	142.64	182.21
tblVehicleTrips	WD_TR	5.44	4.58
tblVehicleTrips	WD_TR	7.32	6.84
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	112.18	182.21

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6973	38.8801	29.6330	0.0635	19.5756	1.6357	21.1889	10.1152	1.5049	11.5995	0.0000	6,157.5609	6,157.5609	1.9486	0.2071	6,207.4001
2023	2.6782	17.1078	25.3571	0.0576	2.6398	0.7243	3.3640	0.7068	0.6815	1.3882	0.0000	5,735.4037	5,735.4037	0.6924	0.1978	5,811.6632
2024	2.5056	16.0679	24.6543	0.0567	2.6397	0.6371	3.2768	0.7067	0.5992	1.3060	0.0000	5,661.7554	5,661.7554	0.6824	0.1916	5,735.9240
2025	100.0066	15.0039	24.0365	0.0558	2.6397	0.5506	3.1903	0.7067	0.5179	1.2246	0.0000	5,590.6919	5,590.6919	0.7161	0.1858	5,662.8874
Maximum	**100.0066**	**38.8801**	**29.6330**	**0.0635**	**19.5756**	**1.6357**	**21.1889**	**10.1152**	**1.5049**	**11.5995**	**0.0000**	**6,157.5609**	**6,157.5609**	**1.9486**	**0.2071**	**6,207.4001**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6973	38.8801	29.6330	0.0635	8.8736	1.6357	10.4869	4.5692	1.5049	6.0534	0.0000	6,157.5609	6,157.5609	1.9486	0.2071	6,207.4001
2023	2.6782	17.1078	25.3571	0.0576	2.4374	0.7243	3.1616	0.6571	0.6815	1.3385	0.0000	5,735.4037	5,735.4037	0.6924	0.1978	5,811.6632
2024	2.5056	16.0679	24.6543	0.0567	2.4373	0.6371	3.0744	0.6571	0.5992	1.2563	0.0000	5,661.7554	5,661.7554	0.6824	0.1916	5,735.9240
2025	100.0066	15.0039	24.0365	0.0558	2.4373	0.5506	2.9879	0.6570	0.5179	1.1749	0.0000	5,590.6919	5,590.6919	0.7161	0.1858	5,662.8874
Maximum	**100.0066**	**38.8801**	**29.6330**	**0.0635**	**8.8736**	**1.6357**	**10.4869**	**4.5692**	**1.5049**	**6.0534**	**0.0000**	**6,157.5609**	**6,157.5609**	**1.9486**	**0.2071**	**6,207.4001**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**41.13**	**0.00**	**36.46**	**46.55**	**0.00**	**36.70**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339
Energy	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543
Mobile	8.3089	6.2415	51.4784	0.0979	10.1951	0.0750	10.2701	2.7175	0.0699	2.7874		10,303.6476	10,303.6476	0.7271	0.5091	10,473.5500
Total	**19.6541**	**7.0157**	**86.1685**	**0.1020**	**10.1951**	**0.2944**	**10.4896**	**2.7175**	**0.2894**	**3.0069**	**0.0000**	**10,819.4554**	**10,819.4554**	**0.7952**	**0.5175**	**10,993.5382**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339
Energy	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543
Mobile	8.3089	6.2415	51.4784	0.0979	10.1951	0.0750	10.2701	2.7175	0.0699	2.7874		10,303.6476	10,303.6476	0.7271	0.5091	10,473.5500
Total	**19.6541**	**7.0157**	**86.1685**	**0.1020**	**10.1951**	**0.2944**	**10.4896**	**2.7175**	**0.2894**	**3.0069**	**0.0000**	**10,819.4554**	**10,819.4554**	**0.7952**	**0.5175**	**10,993.5382**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2022	8/23/2022	5	17	
2	Grading	Grading	8/24/2022	11/15/2022	5	60	
3	Building Construction	Building Construction	11/16/2022	4/21/2025	5	634	
4	Paving	Paving	4/22/2025	6/6/2025	5	34	
5	Architectural Coating	Architectural Coating	6/9/2025	7/24/2025	5	34	

Acres of Grading (Site Preparation Phase): 22

Acres of Grading (Grading Phase): 22

Acres of Paving: 0

Residential Indoor: 844,425; Residential Outdoor: 281,475; Non-Residential Indoor: 32,775; Non-Residential Outdoor: 10,925; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	309.00	48.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	62.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.4387	0.0000	19.4387	10.0789	0.0000	10.0789			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.4387**	**1.6126**	**21.0512**	**10.0789**	**1.4836**	**11.5624**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0652	0.0329	0.5324	1.2900e-003	0.1369	7.4000e-004	0.1377	0.0363	6.8000e-004	0.0370		131.5353	131.5353	3.9000e-003	3.4000e-003	132.6458
Total	**0.0652**	**0.0329**	**0.5324**	**1.2900e-003**	**0.1369**	**7.4000e-004**	**0.1377**	**0.0363**	**6.8000e-004**	**0.0370**		**131.5353**	**131.5353**	**3.9000e-003**	**3.4000e-003**	**132.6458**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7474	0.0000	8.7474	4.5355	0.0000	4.5355			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**8.7474**	**1.6126**	**10.3600**	**4.5355**	**1.4836**	**6.0191**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0652	0.0329	0.5324	1.2900e-003	0.1262	7.4000e-004	0.1270	0.0337	6.8000e-004	0.0344		131.5353	131.5353	3.9000e-003	3.4000e-003	132.6458
Total	**0.0652**	**0.0329**	**0.5324**	**1.2900e-003**	**0.1262**	**7.4000e-004**	**0.1270**	**0.0337**	**6.8000e-004**	**0.0344**		**131.5353**	**131.5353**	**3.9000e-003**	**3.4000e-003**	**132.6458**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4109	0.0000	6.4109	3.3522	0.0000	3.3522			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**6.4109**	**1.6349**	**8.0458**	**3.3522**	**1.5041**	**4.8563**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0725	0.0366	0.5915	1.4400e-003	0.1521	8.3000e-004	0.1530	0.0404	7.6000e-004	0.0411		146.1503	146.1503	4.3400e-003	3.7800e-003	147.3843
Total	**0.0725**	**0.0366**	**0.5915**	**1.4400e-003**	**0.1521**	**8.3000e-004**	**0.1530**	**0.0404**	**7.6000e-004**	**0.0411**		**146.1503**	**146.1503**	**4.3400e-003**	**3.7800e-003**	**147.3843**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8849	0.0000	2.8849	1.5085	0.0000	1.5085			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**2.8849**	**1.6349**	**4.5198**	**1.5085**	**1.5041**	**3.0126**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0725	0.0366	0.5915	1.4400e-003	0.1402	8.3000e-004	0.1411	0.0374	7.6000e-004	0.0382		146.1503	146.1503	4.3400e-003	3.7800e-003	147.3843
Total	**0.0725**	**0.0366**	**0.5915**	**1.4400e-003**	**0.1402**	**8.3000e-004**	**0.1411**	**0.0374**	**7.6000e-004**	**0.0382**		**146.1503**	**146.1503**	**4.3400e-003**	**3.7800e-003**	**147.3843**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1039	2.6146	0.7872	9.4800e-003	0.2892	0.0254	0.3146	0.0833	0.0243	0.1075		1,015.7719	1,015.7719	0.0266	0.1488	1,060.7641
Worker	1.1196	0.5654	9.1390	0.0222	2.3506	0.0128	2.3633	0.6235	0.0118	0.6353		2,258.0227	2,258.0227	0.0670	0.0584	2,277.0870
Total	**1.2235**	**3.1800**	**9.9262**	**0.0317**	**2.6398**	**0.0382**	**2.6779**	**0.7068**	**0.0360**	**0.7428**		**3,273.7946**	**3,273.7946**	**0.0936**	**0.2071**	**3,337.8510**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1039	2.6146	0.7872	9.4800e-003	0.2707	0.0254	0.2961	0.0787	0.0243	0.1030		1,015.7719	1,015.7719	0.0266	0.1488	1,060.7641
Worker	1.1196	0.5654	9.1390	0.0222	2.1667	0.0128	2.1795	0.5784	0.0118	0.5901		2,258.0227	2,258.0227	0.0670	0.0584	2,277.0870
Total	**1.2235**	**3.1800**	**9.9262**	**0.0317**	**2.4374**	**0.0382**	**2.4755**	**0.6571**	**0.0360**	**0.6931**		**3,273.7946**	**3,273.7946**	**0.0936**	**0.2071**	**3,337.8510**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0642	2.2226	0.6919	9.1500e-003	0.2892	0.0124	0.3016	0.0832	0.0119	0.0951		981.0442	981.0442	0.0242	0.1438	1,024.5049
Worker	1.0412	0.5003	8.4211	0.0215	2.3506	0.0121	2.3627	0.6235	0.0112	0.6347		2,199.1495	2,199.1495	0.0604	0.0540	2,216.7522
Total	**1.1054**	**2.7229**	**9.1131**	**0.0306**	**2.6398**	**0.0245**	**2.6643**	**0.7068**	**0.0230**	**0.7298**		**3,180.1937**	**3,180.1937**	**0.0846**	**0.1978**	**3,241.2571**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0642	2.2226	0.6919	9.1500e-003	0.2706	0.0124	0.2830	0.0787	0.0119	0.0906		981.0442	981.0442	0.0242	0.1438	1,024.5049
Worker	1.0412	0.5003	8.4211	0.0215	2.1667	0.0121	2.1788	0.5784	0.0112	0.5895		2,199.1495	2,199.1495	0.0604	0.0540	2,216.7522
Total	**1.1054**	**2.7229**	**9.1131**	**0.0306**	**2.4374**	**0.0245**	**2.4619**	**0.6571**	**0.0230**	**0.6801**		**3,180.1937**	**3,180.1937**	**0.0846**	**0.1978**	**3,241.2571**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0614	2.1785	0.6702	8.9700e-003	0.2892	0.0122	0.3014	0.0832	0.0117	0.0949		962.3604	962.3604	0.0236	0.1414	1,005.0858
Worker	0.9726	0.4457	7.8173	0.0208	2.3506	0.0115	2.3621	0.6235	0.0106	0.6341		2,143.6961	2,143.6961	0.0545	0.0502	2,160.0306
Total	**1.0340**	**2.6241**	**8.4875**	**0.0298**	**2.6397**	**0.0238**	**2.6635**	**0.7067**	**0.0223**	**0.7291**		**3,106.0565**	**3,106.0565**	**0.0781**	**0.1916**	**3,165.1163**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0614	2.1785	0.6702	8.9700e-003	0.2706	0.0122	0.2828	0.0787	0.0117	0.0904		962.3604	962.3604	0.0236	0.1414	1,005.0858
Worker	0.9726	0.4457	7.8173	0.0208	2.1667	0.0115	2.1783	0.5784	0.0106	0.5890		2,143.6961	2,143.6961	0.0545	0.0502	2,160.0306
Total	**1.0340**	**2.6241**	**8.4875**	**0.0298**	**2.4373**	**0.0238**	**2.4611**	**0.6571**	**0.0223**	**0.6794**		**3,106.0565**	**3,106.0565**	**0.0781**	**0.1916**	**3,165.1163**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0592	2.1341	0.6545	8.7800e-003	0.2891	0.0120	0.3011	0.0832	0.0115	0.0947		942.8461	942.8461	0.0231	0.1388	984.7831
Worker	0.9131	0.4001	7.2974	0.0201	2.3506	0.0110	2.3616	0.6235	0.0102	0.6337		2,091.3715	2,091.3715	0.0494	0.0470	2,106.6062
Total	**0.9723**	**2.5342**	**7.9519**	**0.0289**	**2.6397**	**0.0230**	**2.6627**	**0.7067**	**0.0216**	**0.7283**		**3,034.2176**	**3,034.2176**	**0.0724**	**0.1858**	**3,091.3893**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0592	2.1341	0.6545	8.7800e-003	0.2706	0.0120	0.2826	0.0787	0.0115	0.0901		942.8461	942.8461	0.0231	0.1388	984.7831
Worker	0.9131	0.4001	7.2974	0.0201	2.1667	0.0110	2.1778	0.5784	0.0102	0.5885		2,091.3715	2,091.3715	0.0494	0.0470	2,106.6062
Total	**0.9723**	**2.5342**	**7.9519**	**0.0289**	**2.4373**	**0.0230**	**2.4603**	**0.6570**	**0.0216**	**0.6787**		**3,034.2176**	**3,034.2176**	**0.0724**	**0.1858**	**3,091.3893**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0443	0.0194	0.3542	9.7000e-004	0.1141	5.4000e-004	0.1146	0.0303	4.9000e-004	0.0308		101.5229	101.5229	2.4000e-003	2.2800e-003	102.2624
Total	**0.0443**	**0.0194**	**0.3542**	**9.7000e-004**	**0.1141**	**5.4000e-004**	**0.1146**	**0.0303**	**4.9000e-004**	**0.0308**		**101.5229**	**101.5229**	**2.4000e-003**	**2.2800e-003**	**102.2624**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0443	0.0194	0.3542	9.7000e-004	0.1052	5.4000e-004	0.1057	0.0281	4.9000e-004	0.0286		101.5229	101.5229	2.4000e-003	2.2800e-003	102.2624
Total	**0.0443**	**0.0194**	**0.3542**	**9.7000e-004**	**0.1052**	**5.4000e-004**	**0.1057**	**0.0281**	**4.9000e-004**	**0.0286**		**101.5229**	**101.5229**	**2.4000e-003**	**2.2800e-003**	**102.2624**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	99.6525					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**99.8234**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1832	0.0803	1.4642	4.0300e-003	0.4716	2.2100e-003	0.4739	0.1251	2.0400e-003	0.1271		419.6279	419.6279	9.9000e-003	9.4300e-003	422.6847
Total	**0.1832**	**0.0803**	**1.4642**	**4.0300e-003**	**0.4716**	**2.2100e-003**	**0.4739**	**0.1251**	**2.0400e-003**	**0.1271**		**419.6279**	**419.6279**	**9.9000e-003**	**9.4300e-003**	**422.6847**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	99.6525					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**99.8234**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1832	0.0803	1.4642	4.0300e-003	0.4348	2.2100e-003	0.4370	0.1161	2.0400e-003	0.1181		419.6279	419.6279	9.9000e-003	9.4300e-003	422.6847
Total	**0.1832**	**0.0803**	**1.4642**	**4.0300e-003**	**0.4348**	**2.2100e-003**	**0.4370**	**0.1161**	**2.0400e-003**	**0.1181**		**419.6279**	**419.6279**	**9.9000e-003**	**9.4300e-003**	**422.6847**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.3089	6.2415	51.4784	0.0979	10.1951	0.0750	10.2701	2.7175	0.0699	2.7874		10,303.6476	10,303.6476	0.7271	0.5091	10,473.5500
Unmitigated	8.3089	6.2415	51.4784	0.0979	10.1951	0.0750	10.2701	2.7175	0.0699	2.7874		10,303.6476	10,303.6476	0.7271	0.5091	10,473.5500

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,099.20	1,099.20	1099.20	1,684,778	1,684,778
Condo/Townhouse	1,210.68	1,210.68	1210.68	1,841,192	1,841,192
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	911.04	911.04	911.04	1,310,549	1,310,549
Total	3,220.92	3,220.92	3,220.92	4,836,520	4,836,520

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	5.00	4.00	3.38	46.50	12.50	41.00	100	0	0
Condo/Townhouse	5.00	4.00	3.30	46.50	12.50	41.00	100	0	0
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High Turnover (Sit Down	5.00	4.00	3.30	8.50	72.50	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Condo/Townhouse	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Health Club	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
High Turnover (Sit Down Restaurant)	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543
NaturalGas Unmitigated	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	2240.8	0.0242	0.2197	0.1845	1.3200e-003		0.0167	0.0167		0.0167	0.0167		263.6235	263.6235	5.0500e-003	4.8300e-003	265.1901
High Turnover (Sit Down Restaurant)	1616.99	0.0174	0.1585	0.1332	9.5000e-004		0.0121	0.0121		0.0121	0.0121		190.2337	190.2337	3.6500e-003	3.4900e-003	191.3642
Total		**0.0416**	**0.3782**	**0.3177**	**2.2700e-003**		**0.0288**	**0.0288**		**0.0288**	**0.0288**		**453.8572**	**453.8572**	**8.7000e-003**	**8.3200e-003**	**456.5543**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	2.2408	0.0242	0.2197	0.1845	1.3200e-003		0.0167	0.0167		0.0167	0.0167		263.6235	263.6235	5.0500e-003	4.8300e-003	265.1901
High Turnover (Sit Down Restaurant)	1.61699	0.0174	0.1585	0.1332	9.5000e-004		0.0121	0.0121		0.0121	0.0121		190.2337	190.2337	3.6500e-003	3.4900e-003	191.3642
Total		**0.0416**	**0.3782**	**0.3177**	**2.2700e-003**		**0.0288**	**0.0288**		**0.0288**	**0.0288**		**453.8572**	**453.8572**	**8.7000e-003**	**8.3200e-003**	**456.5543**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339
Unmitigated	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9283					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.3432					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0321	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907		61.9506	61.9506	0.0593		63.4339
Total	**11.3037**	**0.3959**	**34.3724**	**1.8200e-003**		**0.1907**	**0.1907**		**0.1907**	**0.1907**	**0.0000**	**61.9506**	**61.9506**	**0.0593**	**0.0000**	**63.4339**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9283					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.3432					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0321	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907		61.9506	61.9506	0.0593		63.4339
Total	**11.3037**	**0.3959**	**34.3724**	**1.8200e-003**		**0.1907**	**0.1907**		**0.1907**	**0.1907**	**0.0000**	**61.9506**	**61.9506**	**0.0593**	**0.0000**	**63.4339**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Residences at Capital Center

Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	14.60	1000sqft	0.34	14,600.00	0
High Turnover (Sit Down Restaurant)	5.00	1000sqft	0.72	5,000.00	0
Apartments Mid Rise	240.00	Dwelling Unit	8.71	240,000.00	641
Condo/Townhouse	177.00	Dwelling Unit	9.93	177,000.00	473

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2026
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	186.1	**CH4 Intensity (lb/MWhr)**	0.012	**N2O Intensity (lb/MWhr)**	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SMUD Intentisty Factor update accoding to 2030 Carbon Neutrality goal

Land Use - Project specific acreage

Construction Phase - 36-month construction schedule

Grading - 22-acres to be graded

Architectural Coating - SMAQMD Rule 442

Vehicle Trips - Trip adjustments

Area Coating - SMAQMD Rule 442

Energy Use - No residential natural gas use. NG use for pool/spa and 2 outdoor fire pits- see supplemental calcs.

Construction Off-road Equipment Mitigation - SMAQMD Construciton BMPs

ITEM 11.1

ATTACHMENT 1

Residences at Capital Center - Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	17.00
tblConstructionPhase	NumDays	30.00	60.00
tblConstructionPhase	NumDays	300.00	634.00
tblConstructionPhase	NumDays	20.00	34.00
tblConstructionPhase	NumDays	20.00	34.00
tblEnergyUse	NT24E	3,054.10	3,842.08
tblEnergyUse	NT24E	3,795.01	8,621.49
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	NT24NG	12.42	56.02
tblEnergyUse	T24E	98.18	2,071.56
tblEnergyUse	T24E	80.14	4,826.48
tblEnergyUse	T24E	3.05	9.84
tblEnergyUse	T24E	7.86	25.18
tblEnergyUse	T24NG	6,729.23	0.00
tblEnergyUse	T24NG	16,185.01	0.00
tblEnergyUse	T24NG	23.15	0.00
tblEnergyUse	T24NG	59.07	0.00
tblGrading	AcresOfGrading	180.00	22.00
tblGrading	AcresOfGrading	25.50	22.00
tblLandUse	LotAcreage	0.11	0.72

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	6.32	8.71
tblLandUse	LotAcreage	11.06	9.93
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.012
tblProjectCharacteristics	CO2IntensityFactor	357.98	186.1
tblProjectCharacteristics	N2OIntensityFactor	0.004	0.002
tblVehicleTrips	CC_TL	5.00	0.00
tblVehicleTrips	CC_TL	5.00	4.00
tblVehicleTrips	CC_TTP	64.10	0.00
tblVehicleTrips	CNW_TL	6.50	0.00
tblVehicleTrips	CNW_TL	6.50	3.30
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	10.00	0.00
tblVehicleTrips	CW_TL	10.00	5.00
tblVehicleTrips	CW_TTP	16.90	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	HO_TL	6.50	3.38
tblVehicleTrips	HO_TL	6.50	3.30
tblVehicleTrips	HS_TL	5.00	4.00
tblVehicleTrips	HS_TL	5.00	4.00
tblVehicleTrips	HW_TL	10.00	5.00
tblVehicleTrips	HW_TL	10.00	5.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	52.00	0.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	ST_TR	4.91	4.58
tblVehicleTrips	ST_TR	8.14	6.84
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	122.40	182.21
tblVehicleTrips	SU_TR	4.09	4.58
tblVehicleTrips	SU_TR	6.28	6.84
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	142.64	182.21
tblVehicleTrips	WD_TR	5.44	4.58
tblVehicleTrips	WD_TR	7.32	6.84
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	112.18	182.21

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6889	38.8884	29.5539	0.0634	19.5756	1.6357	21.1889	10.1152	1.5049	11.5995	0.0000	6,141.3666	6,141.3666	1.9492	0.2160	6,191.3878
2023	2.5570	17.3875	24.3017	0.0552	2.6398	0.7244	3.3642	0.7068	0.6816	1.3883	0.0000	5,493.1687	5,493.1687	0.7015	0.2061	5,572.1215
2024	2.3940	16.3323	23.7086	0.0544	2.6397	0.6372	3.2769	0.7067	0.5993	1.3061	0.0000	5,426.3812	5,426.3812	0.6909	0.1993	5,503.0504
2025	99.9862	15.2551	23.1793	0.0536	2.6397	0.5507	3.1904	0.7067	0.5180	1.2247	0.0000	5,361.7130	5,361.7130	0.7165	0.1929	5,436.2428
Maximum	**99.9862**	**38.8884**	**29.5539**	**0.0634**	**19.5756**	**1.6357**	**21.1889**	**10.1152**	**1.5049**	**11.5995**	**0.0000**	**6,141.3666**	**6,141.3666**	**1.9492**	**0.2160**	**6,191.3878**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6889	38.8884	29.5539	0.0634	8.8736	1.6357	10.4869	4.5692	1.5049	6.0534	0.0000	6,141.3666	6,141.3666	1.9492	0.2160	6,191.3878
2023	2.5570	17.3875	24.3017	0.0552	2.4374	0.7244	3.1618	0.6571	0.6816	1.3387	0.0000	5,493.1687	5,493.1687	0.7015	0.2061	5,572.1215
2024	2.3940	16.3323	23.7086	0.0544	2.4373	0.6372	3.0745	0.6571	0.5993	1.2564	0.0000	5,426.3812	5,426.3812	0.6909	0.1993	5,503.0504
2025	99.9862	15.2551	23.1793	0.0536	2.4373	0.5507	2.9880	0.6570	0.5180	1.1750	0.0000	5,361.7130	5,361.7130	0.7165	0.1929	5,436.2428
Maximum	**99.9862**	**38.8884**	**29.5539**	**0.0634**	**8.8736**	**1.6357**	**10.4869**	**4.5692**	**1.5049**	**6.0534**	**0.0000**	**6,141.3666**	**6,141.3666**	**1.9492**	**0.2160**	**6,191.3878**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**41.13**	**0.00**	**36.46**	**46.55**	**0.00**	**36.70**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339
Energy	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543
Mobile	6.0881	7.1990	53.9939	0.0898	10.1951	0.0751	10.2702	2.7175	0.0701	2.7876		9,445.2127	9,445.2127	0.8529	0.5576	9,632.6959
Total	**17.4334**	**7.9731**	**88.6840**	**0.0939**	**10.1951**	**0.2946**	**10.4897**	**2.7175**	**0.2895**	**3.0070**	**0.0000**	**9,961.0205**	**9,961.0205**	**0.9209**	**0.5659**	**10,152.6841**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339
Energy	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543
Mobile	6.0881	7.1990	53.9939	0.0898	10.1951	0.0751	10.2702	2.7175	0.0701	2.7876		9,445.2127	9,445.2127	0.8529	0.5576	9,632.6959
Total	**17.4334**	**7.9731**	**88.6840**	**0.0939**	**10.1951**	**0.2946**	**10.4897**	**2.7175**	**0.2895**	**3.0070**	**0.0000**	**9,961.0205**	**9,961.0205**	**0.9209**	**0.5659**	**10,152.6841**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2022	8/23/2022	5	17	
2	Grading	Grading	8/24/2022	11/15/2022	5	60	
3	Building Construction	Building Construction	11/16/2022	4/21/2025	5	634	
4	Paving	Paving	4/22/2025	6/6/2025	5	34	
5	Architectural Coating	Architectural Coating	6/9/2025	7/24/2025	5	34	

Acres of Grading (Site Preparation Phase): 22

Acres of Grading (Grading Phase): 22

Acres of Paving: 0

Residential Indoor: 844,425; Residential Outdoor: 281,475; Non-Residential Indoor: 32,775; Non-Residential Outdoor: 10,925; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	309.00	48.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	62.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.4387	0.0000	19.4387	10.0789	0.0000	10.0789			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.4387**	**1.6126**	**21.0512**	**10.0789**	**1.4836**	**11.5624**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0576	0.0404	0.4612	1.1500e-003	0.1369	7.4000e-004	0.1377	0.0363	6.8000e-004	0.0370		116.9605	116.9605	4.4700e-003	3.9000e-003	118.2347
Total	**0.0576**	**0.0404**	**0.4612**	**1.1500e-003**	**0.1369**	**7.4000e-004**	**0.1377**	**0.0363**	**6.8000e-004**	**0.0370**		**116.9605**	**116.9605**	**4.4700e-003**	**3.9000e-003**	**118.2347**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7474	0.0000	8.7474	4.5355	0.0000	4.5355			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**8.7474**	**1.6126**	**10.3600**	**4.5355**	**1.4836**	**6.0191**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0576	0.0404	0.4612	1.1500e-003	0.1262	7.4000e-004	0.1270	0.0337	6.8000e-004	0.0344		116.9605	116.9605	4.4700e-003	3.9000e-003	118.2347
Total	**0.0576**	**0.0404**	**0.4612**	**1.1500e-003**	**0.1262**	**7.4000e-004**	**0.1270**	**0.0337**	**6.8000e-004**	**0.0344**		**116.9605**	**116.9605**	**4.4700e-003**	**3.9000e-003**	**118.2347**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4109	0.0000	6.4109	3.3522	0.0000	3.3522			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**6.4109**	**1.6349**	**8.0458**	**3.3522**	**1.5041**	**4.8563**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0640	0.0449	0.5124	1.2800e-003	0.1521	8.3000e-004	0.1530	0.0404	7.6000e-004	0.0411		129.9561	129.9561	4.9700e-003	4.3300e-003	131.3719
Total	**0.0640**	**0.0449**	**0.5124**	**1.2800e-003**	**0.1521**	**8.3000e-004**	**0.1530**	**0.0404**	**7.6000e-004**	**0.0411**		**129.9561**	**129.9561**	**4.9700e-003**	**4.3300e-003**	**131.3719**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8849	0.0000	2.8849	1.5085	0.0000	1.5085			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**2.8849**	**1.6349**	**4.5198**	**1.5085**	**1.5041**	**3.0126**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0640	0.0449	0.5124	1.2800e-003	0.1402	8.3000e-004	0.1411	0.0374	7.6000e-004	0.0382		129.9561	129.9561	4.9700e-003	4.3300e-003	131.3719
Total	**0.0640**	**0.0449**	**0.5124**	**1.2800e-003**	**0.1402**	**8.3000e-004**	**0.1411**	**0.0374**	**7.6000e-004**	**0.0382**		**129.9561**	**129.9561**	**4.9700e-003**	**4.3300e-003**	**131.3719**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1021	2.8082	0.8220	9.4700e-003	0.2892	0.0256	0.3148	0.0833	0.0245	0.1077		1,015.6534	1,015.6534	0.0265	0.1490	1,060.7170
Worker	0.9893	0.6942	7.9166	0.0197	2.3506	0.0128	2.3633	0.6235	0.0118	0.6353		2,007.8213	2,007.8213	0.0767	0.0670	2,029.6964
Total	**1.0914**	**3.5024**	**8.7386**	**0.0292**	**2.6398**	**0.0383**	**2.6781**	**0.7068**	**0.0362**	**0.7430**		**3,023.4747**	**3,023.4747**	**0.1032**	**0.2160**	**3,090.4134**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1021	2.8082	0.8220	9.4700e-003	0.2707	0.0256	0.2962	0.0787	0.0245	0.1032		1,015.6534	1,015.6534	0.0265	0.1490	1,060.7170
Worker	0.9893	0.6942	7.9166	0.0197	2.1667	0.0128	2.1795	0.5784	0.0118	0.5901		2,007.8213	2,007.8213	0.0767	0.0670	2,029.6964
Total	**1.0914**	**3.5024**	**8.7386**	**0.0292**	**2.4374**	**0.0383**	**2.4757**	**0.6571**	**0.0362**	**0.6933**		**3,023.4747**	**3,023.4747**	**0.1032**	**0.2160**	**3,090.4134**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0621	2.3888	0.7234	9.1500e-003	0.2892	0.0126	0.3017	0.0832	0.0120	0.0952		981.7473	981.7473	0.0241	0.1442	1,025.3080
Worker	0.9222	0.6138	7.3343	0.0191	2.3506	0.0121	2.3627	0.6235	0.0112	0.6347		1,956.2115	1,956.2115	0.0695	0.0619	1,976.4075
Total	**0.9842**	**3.0026**	**8.0577**	**0.0283**	**2.6398**	**0.0247**	**2.6644**	**0.7068**	**0.0232**	**0.7299**		**2,937.9588**	**2,937.9588**	**0.0936**	**0.2061**	**3,001.7155**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0621	2.3888	0.7234	9.1500e-003	0.2706	0.0126	0.2832	0.0787	0.0120	0.0907		981.7473	981.7473	0.0241	0.1442	1,025.3080
Worker	0.9222	0.6138	7.3343	0.0191	2.1667	0.0121	2.1788	0.5784	0.0112	0.5895		1,956.2115	1,956.2115	0.0695	0.0619	1,976.4075
Total	**0.9842**	**3.0026**	**8.0577**	**0.0283**	**2.4374**	**0.0247**	**2.4620**	**0.6571**	**0.0232**	**0.6802**		**2,937.9588**	**2,937.9588**	**0.0936**	**0.2061**	**3,001.7155**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0593	2.3420	0.7011	8.9800e-003	0.2892	0.0124	0.3015	0.0832	0.0118	0.0950		963.1723	963.1723	0.0235	0.1417	1,005.9939
Worker	0.8631	0.5465	6.8407	0.0185	2.3506	0.0115	2.3621	0.6235	0.0106	0.6341		1,907.5100	1,907.5100	0.0631	0.0576	1,926.2488
Total	**0.9224**	**2.8885**	**7.5418**	**0.0275**	**2.6397**	**0.0239**	**2.6636**	**0.7067**	**0.0224**	**0.7292**		**2,870.6823**	**2,870.6823**	**0.0866**	**0.1993**	**2,932.2428**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0593	2.3420	0.7011	8.9800e-003	0.2706	0.0124	0.2830	0.0787	0.0118	0.0905		963.1723	963.1723	0.0235	0.1417	1,005.9939
Worker	0.8631	0.5465	6.8407	0.0185	2.1667	0.0115	2.1783	0.5784	0.0106	0.5890		1,907.5100	1,907.5100	0.0631	0.0576	1,926.2488
Total	**0.9224**	**2.8885**	**7.5418**	**0.0275**	**2.4373**	**0.0239**	**2.4612**	**0.6571**	**0.0224**	**0.6795**		**2,870.6823**	**2,870.6823**	**0.0866**	**0.1993**	**2,932.2428**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0571	2.2951	0.6846	8.7900e-003	0.2891	0.0121	0.3012	0.0832	0.0116	0.0948		943.7479	943.7479	0.0230	0.1391	985.7787
Worker	0.8114	0.4904	6.4101	0.0179	2.3506	0.0110	2.3616	0.6235	0.0102	0.6337		1,861.4907	1,861.4907	0.0574	0.0538	1,878.9661
Total	**0.8684**	**2.7854**	**7.0947**	**0.0267**	**2.6397**	**0.0231**	**2.6628**	**0.7067**	**0.0217**	**0.7285**		**2,805.2386**	**2,805.2386**	**0.0804**	**0.1929**	**2,864.7448**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0571	2.2951	0.6846	8.7900e-003	0.2706	0.0121	0.2827	0.0787	0.0116	0.0902		943.7479	943.7479	0.0230	0.1391	985.7787
Worker	0.8114	0.4904	6.4101	0.0179	2.1667	0.0110	2.1778	0.5784	0.0102	0.5885		1,861.4907	1,861.4907	0.0574	0.0538	1,878.9661
Total	**0.8684**	**2.7854**	**7.0947**	**0.0267**	**2.4373**	**0.0231**	**2.4604**	**0.6570**	**0.0217**	**0.6788**		**2,805.2386**	**2,805.2386**	**0.0804**	**0.1929**	**2,864.7448**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0394	0.0238	0.3112	8.7000e-004	0.1141	5.4000e-004	0.1146	0.0303	4.9000e-004	0.0308		90.3636	90.3636	2.7900e-003	2.6100e-003	91.2120
Total	**0.0394**	**0.0238**	**0.3112**	**8.7000e-004**	**0.1141**	**5.4000e-004**	**0.1146**	**0.0303**	**4.9000e-004**	**0.0308**		**90.3636**	**90.3636**	**2.7900e-003**	**2.6100e-003**	**91.2120**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0394	0.0238	0.3112	8.7000e-004	0.1052	5.4000e-004	0.1057	0.0281	4.9000e-004	0.0286		90.3636	90.3636	2.7900e-003	2.6100e-003	91.2120
Total	**0.0394**	**0.0238**	**0.3112**	**8.7000e-004**	**0.1052**	**5.4000e-004**	**0.1057**	**0.0281**	**4.9000e-004**	**0.0286**		**90.3636**	**90.3636**	**2.7900e-003**	**2.6100e-003**	**91.2120**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	99.6525					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**99.8234**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1628	0.0984	1.2862	3.5900e-003	0.4716	2.2100e-003	0.4739	0.1251	2.0400e-003	0.1271		373.5030	373.5030	0.0115	0.0108	377.0094
Total	**0.1628**	**0.0984**	**1.2862**	**3.5900e-003**	**0.4716**	**2.2100e-003**	**0.4739**	**0.1251**	**2.0400e-003**	**0.1271**		**373.5030**	**373.5030**	**0.0115**	**0.0108**	**377.0094**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	99.6525					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**99.8234**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1628	0.0984	1.2862	3.5900e-003	0.4348	2.2100e-003	0.4370	0.1161	2.0400e-003	0.1181		373.5030	373.5030	0.0115	0.0108	377.0094
Total	**0.1628**	**0.0984**	**1.2862**	**3.5900e-003**	**0.4348**	**2.2100e-003**	**0.4370**	**0.1161**	**2.0400e-003**	**0.1181**		**373.5030**	**373.5030**	**0.0115**	**0.0108**	**377.0094**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.0881	7.1990	53.9939	0.0898	10.1951	0.0751	10.2702	2.7175	0.0701	2.7876		9,445.2127	9,445.2127	0.8529	0.5576	9,632.6959
Unmitigated	6.0881	7.1990	53.9939	0.0898	10.1951	0.0751	10.2702	2.7175	0.0701	2.7876		9,445.2127	9,445.2127	0.8529	0.5576	9,632.6959

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,099.20	1,099.20	1099.20	1,684,778	1,684,778
Condo/Townhouse	1,210.68	1,210.68	1210.68	1,841,192	1,841,192
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	911.04	911.04	911.04	1,310,549	1,310,549
Total	3,220.92	3,220.92	3,220.92	4,836,520	4,836,520

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	5.00	4.00	3.38	46.50	12.50	41.00	100	0	0
Condo/Townhouse	5.00	4.00	3.30	46.50	12.50	41.00	100	0	0
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High Turnover (Sit Down	5.00	4.00	3.30	8.50	72.50	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Condo/Townhouse	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Health Club	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
High Turnover (Sit Down Restaurant)	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543
NaturalGas Unmitigated	0.0416	0.3782	0.3177	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.8572	453.8572	8.7000e-003	8.3200e-003	456.5543

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	2240.8	0.0242	0.2197	0.1845	1.3200e-003		0.0167	0.0167		0.0167	0.0167		263.6235	263.6235	5.0500e-003	4.8300e-003	265.1901
High Turnover (Sit Down Restaurant)	1616.99	0.0174	0.1585	0.1332	9.5000e-004		0.0121	0.0121		0.0121	0.0121		190.2337	190.2337	3.6500e-003	3.4900e-003	191.3642
Total		**0.0416**	**0.3782**	**0.3177**	**2.2700e-003**		**0.0288**	**0.0288**		**0.0288**	**0.0288**		**453.8572**	**453.8572**	**8.7000e-003**	**8.3200e-003**	**456.5543**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	2.2408	0.0242	0.2197	0.1845	1.3200e-003		0.0167	0.0167		0.0167	0.0167		263.6235	263.6235	5.0500e-003	4.8300e-003	265.1901
High Turnover (Sit Down Restaurant)	1.61699	0.0174	0.1585	0.1332	9.5000e-004		0.0121	0.0121		0.0121	0.0121		190.2337	190.2337	3.6500e-003	3.4900e-003	191.3642
Total		**0.0416**	**0.3782**	**0.3177**	**2.2700e-003**		**0.0288**	**0.0288**		**0.0288**	**0.0288**		**453.8572**	**453.8572**	**8.7000e-003**	**8.3200e-003**	**456.5543**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339
Unmitigated	11.3037	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907	0.0000	61.9506	61.9506	0.0593	0.0000	63.4339

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9283					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.3432					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0321	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907		61.9506	61.9506	0.0593		63.4339
Total	**11.3037**	**0.3959**	**34.3724**	**1.8200e-003**		**0.1907**	**0.1907**		**0.1907**	**0.1907**	**0.0000**	**61.9506**	**61.9506**	**0.0593**	**0.0000**	**63.4339**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9283					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.3432					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0321	0.3959	34.3724	1.8200e-003		0.1907	0.1907		0.1907	0.1907		61.9506	61.9506	0.0593		63.4339
Total	**11.3037**	**0.3959**	**34.3724**	**1.8200e-003**		**0.1907**	**0.1907**		**0.1907**	**0.1907**	**0.0000**	**61.9506**	**61.9506**	**0.0593**	**0.0000**	**63.4339**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

CalEEMod VMT Calculator

This calcultor was created based on the default trip inputs for the unmitigated CalEEMod run. The calculator calculateds the annual VMT from the proposed project using the same methodology from CalEEMod, described in Appendix A, for the UNMITIGATED SCENARIO. This calculator can be used to adjust land use trip rates for the MITIGATED PROJECT scenario which is based on the traffic study conducted for the project

Daily VMT Provided 320 days per year

Annual VMT Provided 4,832,236

Trip Type

CalEEMod defaults based on land uses inputted

Land Use	Miles			Trip %			Trip Purpose		
	H-w or C-W	H-S or C-C	H-O or C-O	H-w or C-W	H-S or C-C	H-O or C-O	Primary	Diverted	Pass-by
Apartments Mid Rise	5.00	4.00	3.38	46.5%	12.5%	41.0%	100.0%	0.0%	0.0%
Townhomes	5.00	4.00	3.30	46.5%	12.5%	41.0%	100.0%	0.0%	0.0%
High Turnover Restaurant	5.00	4.00	3.30	8.5%	72.5%	19.0%	100.0%	0.0%	0.0%

Total Trips

Total Trips = (TripRate weekday x 5 +Trip Sat + Trip Sun)

Average Daily Trips Based on CalEEMod Trip Gen Defaults per land use unit. Total trips Calculated

Land Use	Average Daily Trip Rate			
	weekday	Saturday	Sunday	Total Trips (weekly)
Apartments Mid Rise	1,098.00	1,098.00	1,098.00	**7,686.00**
Townhomes	1,210.00	1,210.00	1,210.00	**8,470.00**
High Turnover Restaurant	911.00	911.00	911.00	**6,377.00**

Trip Length Calc

AVG Trip Length = Link % primary x trip length primary+link % divertedx0.25x length trip primary+link % passbyx0.1

Trip length calculated for each trip type based on trip purpose % and length defaults from CalEEMod

Land Use

Apartments Mid Rise	link % primary	trip length primary	link % diverted	Constant (0.25)	trip length primary	link % passby	constant	Trip Length
H-W or c-w	100.0%	5.00	0.0%	0.25	5	0.0%	0.1	5.0
h-s or c-c	100.0%	4.00	0.0%	0.25	4	0.0%	0.1	4.0
h-o or c-o	100.0%	3.38	0.0%	0.25	3.38	0.0%	0.1	3.4
Townhomes	link % primary	trip length primary	link % diverted	Constant (0.25)	trip length primary	link % passby	constant	Trip Length
H-W or c-w	100.0%	5.00	0.0%	0.25	5.00	0.0%	0.1	5.0
h-s or c-c	100.0%	4.00	0.0%	0.25	4.00	0.0%	0.1	4.0
h-o or c-o	100.0%	3.30	0.0%	0.25	3.30	0.0%	0.1	3.3
High Turnover Restaurant	link % primary	trip length primary	link % diverted	Constant (0.25)	trip length primary	link % passby	constant	Trip Length
H-W or c-w	100.0%	5.00	0.0%	0.25	5.00	0.0%	0.1	5.0
h-s or c-c	100.0%	4.00	0.0%	0.25	4.00	0.0%	0.1	4.0
h-o or c-o	100.0%	3.30	0.0%	0.25	3.30	0.0%	0.1	3.3
0	link % primary	trip length primary	link % diverted	Constant (0.25)	trip length primary	link % passby	constant	Trip Length
H-W or c-w	0.0%	0.00	0.0%	0.25	0.00	0.0%	0.1	0.0
h-s or c-c	0.0%	0.00	0.0%	0.25	0.00	0.0%	0.1	0.0
h-o or c-o	0.0%	0.00	0.0%	0.25	0.00	0.0%	0.1	0.0
0	link % primary	trip length primary	link % diverted	Constant (0.25)	trip length primary	link % passby	constant	Trip Length
H-W or c-w	0.0%	0.00	0.0%	0.25	0.00	0.0%	0.1	0.0
h-s or c-c	0.0%	0.00	0.0%	0.25	0.00	0.0%	0.1	0.0
h-o or c-o	0.0%	0.00	0.0%	0.25	0.00	0.0%	0.1	0.0

VMT Calc Per Land Use Type (Weekly)

VMT = #Trips x AVG Trip Length per land use and trip type

Trip number for each trip type are derived by multiplying the total trips for each land use calculated above in the Total Trip Calcs by the trip % shown in the Trip Type table for each land use

Apartments Mid Rise	**# trips**	**trip length**	**Weekly VMT**	**Annual VMT**
H-W or c-w	3,574	5.0	17,870	
h-s or c-c	961	4.0	3,843	
h-o or c-o	3,151	3.4	10,651	1,682,938.86
Townhomes				
H-W or c-w	3,939	5.0	19,693	
h-s or c-c	1,059	4.0	4,235	
h-o or c-o	3,473	3.3	11,460	1,840,158.32
High Turnover Restaurant				
h-s or c-c	542	5.0	2,710	
h-o or c-o	4,623	4.0	18,493	
h-o or c-o	1,212	3.3	3,998	1,310,499.01
0				
H-W or c-w	0	0.0	-	
h-s or c-c	0	0.0	-	
h-o or c-o	0	0.0	-	-
0				
H-W or c-w	0	0.0	-	
h-s or c-c	0	0.0	-	
h-o or c-o	0	0.0	-	-
Total VMT			92,954	4,833,596.19

Annual VMT Calc

the calculated weekly VMT for each land use is summed. This value is multiplied by 50 weeks/year to equal the annual VMT number calculated by CalEEMod

Summed Weekly VMT from Each Land Use	92,953.77		
Weeks per Year CalEEMod Uses for Annual VMT	52.00	52.0000	52.14285714
Calculated Annual VMT	**4,833,596**		

Natural Gas Conversion to Electricity

	CalEEMod Land Use Inputs			CalEEMod Energy Use Defaults					NG To E Conversion		CalEEMod Override	
				T24E	NT24E	LightingElect	T24NG	NT24NG	T24NG	NT24NG	T24NG	NT24NG
Land Use	Unit Amount	Size Metric	SF	kWh/size/yr	kWh/size/yr	kWh/size/yr	kBTU/size/year	kBTU/size/year	kBTU/size/year	kBTU/size/year		
Apartments Mid Rise	240	DU	240,000.00	98.18	3,054.10	741.44	6,729.23	2,687.00	1,973.38	787.98	**2,071.56**	**3,842.08**
Condo/Townhouse	177	DU	177,000.00	80.14	3,795.01	1,001.10	16,185.01	2,687.00	4,746.34	787.98	**4,826.48**	**8,621.49**
Health Club	14.6	1000 SF	14,600.00	3.05	7.20	4.57	23.15	12.42	6.79		**9.84**	**55.98**
High Turnover (Sit Down Restaurant)	4.999	1000 SF	4,999.00	7.86	26.72	6.19	59.07	118.04	17.32		**25.18**	
Energy Conversion Factors			3.41	kWh/kBTU								

Gas Firepit Natural Gas Use	Value	Unit	Source
Burner Rating	92000	BTU/HR	homedepot.com
Hours per use	4		assumption
days / month	12		assumption
days / year	72		assumption
NG / fire pit / year	317952000	BTU/YR	
Project (2 fire pits)	635904000	BTU/YR	
Annual NG Use	**635904**	**KBTU/YR**	
CalEEmod Input			
Health Club	14600	SF	
	43.6	KBTU/SF/YR	

Notes: NG use was converted to electricty use based on CalEEMod default energy demand and converting BTU to KWH. Then the converted values were added to the projects' Electricity demand. Hihglighted cells represent NG values converted to electricity. Natural gas for the non-residential uses would be limited to pool/spa heating and 2 outdoor firepits. Firepit gas use was added to NONT24 NG Use for the health club/community center use

Construction Schedule Adjustment

Phase Name	Phase Type	CalEEMod Total Days	Portion of Construction Schedule	Construction Schedule for 36 months	Check
Site Preparation	Site Preparation	10	2%	17	2%
Grading	Grading	35	8%	60	8%
Building Construction	Building Construction	370	81%	634	81%
Paving	Paving	20	4%	34	4%
Architectural Coating	Architectural Coating	20	4%	34	4%
		455	100%	780	100%

Electric Vehicle Charging GHG Credit Calculation

	EV Chargers		
1	Number of EV Chargers	12	From calcualted number of electrically connected parking spaces
2	Percent of EV vehicles in Sacramento County - Residential	8%	Calculated using EMFAC 2021
3	Connections per Charging Station	1	1 connection at each charging station
4	Average Charging Hours per Connection per Day	3	Note 1
5	Average Total Hours Charging per year for all Connections	13,140	Item 1 * Item 2 * Item 3 * Item 4 * 365
6	Typical Average Charging Rate (kWh/hr)	6	Note 2
7	Total kWh charged per year	78,840	Item 5 * Item 6
8	Total MWh charged per year	79	Item 7 / 1000
9	**Public Charging Stations**		
10	Average Efficiency of EV LDV (kWh/100 mi)	34.0	Note 3
11	Average Efficiency of EV LDV (miles per kWh)	2.9	100 mi / Item 10
12	Number of Equivalent Miles Charged per year (gasoline miles avoided)	231,882	Item 7 * Item 11
13			
14	SMUD CO2 intensity in 2026 (lbs/MWh)	186.1	Note 4
15			
16	CO2 running emission factor for gasoline vehicles in 2026 (g/mi)	281.1	Note 5
17			
18	Annual CO2 Emissions Saved through Charging (tons per year)	71.8	Item 12 * Item 16 converted to tons
19	Annual CO2 Emissions Saved through Charging (metric tons per year)	65.2	Convert Item 18 to metric tons
20	Annual CO2 Emissions from Electricity required to charge (metric tons per year)	6.7	Item 8 * Item 14 converted to metric tons
21	**Net Annual CO2 Emissions Saved (metric tons per year)**	**58.5**	Item 19 minus Item 20

Note 1: Drive Clean California states that it takes 4 to 6 hours to fully charge an EV. But one would not typically allow the vehicle to be empty before charging, thus assumed 3 hrs/charge.
Note 2: Drive Clean California states that EVs have battery capacities of 24 to 36 kWh and fully charge in 4 to 6 hours, so 6 kWh/hr.
Note 3: Average effeciency of 24 model year 2019 electric vehicles, per USDOE. Used only model year 2019 because vehicles will be more efficient in 2035 than in the past.
Note 4: 2026 operational year adjusted according to SMUD 2030 carbon neutrality goal
Note 5: From EMFAC 2021 for gasoline engines, all models and model years; calendar year 2026.

Sequestration Credit Calculation	
Tree Type	Quantity
Red Maple	48
Chinese pistache	49
Frontier Elm	49
village green	49
deodar cedar	28
fern pine	28
holly oak	28
western redbud	68
red crape myrtle	69
little gem	69
pink dawn	69
trident maple	47
princeton sentry	47
golden rain	47
musashino	48
Red oak	30
True green lacebark elm	31
Total Trees	*804*
MTCO2 Accumulation per tree/year	0.0354
Total Redux (MT/yr)	**28**
Notes: Annual CO2 accumulation rate from CalEEMod 2020 Appendix A for miscellaneoous trees.	

Operational Energy Summary

Land Use	Natural Gas kBTU/year	Natural Gas therm/year	Electricity kWh/year	Electricity MWh/year
Apartments Mid Rise	0	0	1,597,110	1,597
Condo/Townhouse	0	0	2,557,490	
Health Club	817,892	8,179	315,506	
High Turnover (Sit Down Restaurant)	590,200	5,902	290,450	
	0	0		0
Total	**1,408,092**	**14,081**	**4,760,556**	**1,597**

Energy Calculations Summary

Operational Fuel Use Summary

Fuel Type	Fleet Mix (%)	Gallons per Mile	Annual VMT	Gallons
Gasoline	98.81%	0.04	4,836,520	196,025
Diesel	1.19%	0.12		6,770

Notes:

1. Fleet mix calculated from CalEEMod default values.
2. Gallons per mile calculated from EMFAC 2021.
3. Annual VMT obtained from CalEEMod output file.

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Sacramento
Calendar Year: 2026
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	CVMT miles/day	EVMT miles/day	Trips trips/day	Gasoline Fuel Consumption 1,000 gallons/day	Diesel Fuel Consumption 1,000 gallons/day
Sacrament	2026	All Other Buses	Aggregate	Aggregate	Diesel	469.187762	24539.43255	24539.43255	0	4175.771082		2.749873598
Sacrament	2026	All Other Buses	Aggregate	Aggregate	Natural Ga	63.96416593	3722.56086	3722.56086	0	569.2810768	0	
Sacrament	2026	LDA	Aggregate	Aggregate	Gasoline	490520.664	17966701.5	17966701.5	0	2254615.988	604.9983217	
Sacrament	2026	LDA	Aggregate	Aggregate	Diesel	1430.745301	37721.50272	37721.50272	0	5893.808305		0.864720808
Sacrament	2026	LDA	Aggregate	Aggregate	Electricity	28982.42278	1380306.326	0	1380306.326	143407.6929	0	
Sacrament	2026	LDA	Aggregate	Aggregate	Plug-in Hyb	14977.6109	654841.653	312089.4567	342752.1963	61932.42107	0	
Sacrament	2026	LDT1	Aggregate	Aggregate	Gasoline	47430.07468	1500520.957	1500520.957	0	206539.2245	60.50798247	
Sacrament	2026	LDT1	Aggregate	Aggregate	Diesel	16.20559695	143.3004056	143.3004056	0	44.90788683		0.006017598
Sacrament	2026	LDT1	Aggregate	Aggregate	Electricity	175.1803744	7332.135322	0	7332.135322	826.2935804	0	
Sacrament	2026	LDT1	Aggregate	Aggregate	Plug-in Hyb	92.6274366	4507.170864	1927.974638	2579.196226	383.0144504	0	
Sacrament	2026	LDT2	Aggregate	Aggregate	Gasoline	241263.535	9009804.273	9009804.273	0	1117072.271	374.4565018	
Sacrament	2026	LDT2	Aggregate	Aggregate	Diesel	773.0221254	30675.15942	30675.15942	0	3663.465023		0.929146636
Sacrament	2026	LDT2	Aggregate	Aggregate	Electricity	1942.902522	68690.07787	0	68690.07787	9829.02384	0	
Sacrament	2026	LDT2	Aggregate	Aggregate	Plug-in Hyb	2236.214513	103421.9192	46576.65582	56845.26342	9246.747013	0	
Sacrament	2026	LHD1	Aggregate	Aggregate	Gasoline	20553.00978	740600.0124	740600.0124	0	306209.2217	76.09755447	
Sacrament	2026	LHD1	Aggregate	Aggregate	Diesel	13789.3624	491992.1781	491992.1781	0	173452.8319		30.6578936
Sacrament	2026	LHD1	Aggregate	Aggregate	Electricity	243.7058975	16291.82349	0	16291.82349	3410.850772	0	
Sacrament	2026	LHD2	Aggregate	Aggregate	Gasoline	2842.835824	102173.044	102173.044	0	42354.01795	11.68314156	
Sacrament	2026	LHD2	Aggregate	Aggregate	Diesel	5354.107557	200747.7344	200747.7344	0	67347.9376		15.02769638
Sacrament	2026	LHD2	Aggregate	Aggregate	Electricity	62.04140345	3950.499601	0	3950.499601	823.0006996	0	
Sacrament	2026	MCY	Aggregate	Aggregate	Gasoline	26668.73903	143066.9299	143066.9299	0	53337.47807	3.556738291	
Sacrament	2026	MDV	Aggregate	Aggregate	Gasoline	152420.7174	5305204.632	5305204.632	0	692362.459	270.171663	
Sacrament	2026	MDV	Aggregate	Aggregate	Diesel	2517.863077	91089.26373	91089.26373	0	11617.91905		3.686918234
Sacrament	2026	MDV	Aggregate	Aggregate	Electricity	2074.444415	73273.89269	0	73273.89269	10492.0296	0	
Sacrament	2026	MDV	Aggregate	Aggregate	Plug-in Hyb	1385.855033	62349.05819	28424.07977	33924.97841	5730.510562	0	
Sacrament	2026	MH	Aggregate	Aggregate	Gasoline	2559.574889	22993.19608	22993.19608	0	256.0598719	5.210088179	
Sacrament	2026	MH	Aggregate	Aggregate	Diesel	1079.195807	9690.490905	9690.490905	0	107.9195807		1.031832885
Sacrament	2026	Motor Coach	Aggregate	Aggregate	Diesel	100.32814	12949.10452	12949.10452	0	2305.540658		2.309416706
Sacrament	2026	OBUS	Aggregate	Aggregate	Gasoline	495.2475434	20608.72061	20608.72061	0	9908.912848	4.303585972	
Sacrament	2026	OBUS	Aggregate	Aggregate	Electricity	2.88628539	251.4188919	0	251.4188919	57.74879808	0	
Sacrament	2026	PTO	Aggregate	Aggregate	Diesel	0	24092.85203	24092.85203	0	0		4.755018899
Sacrament	2026	PTO	Aggregate	Aggregate	Electricity	0	481.9543973	0	481.9543973	0	0	
Sacrament	2026	SBUS	Aggregate	Aggregate	Gasoline	124.4030436	6562.066813	6562.066813	0	497.6121745	0.644930373	
Sacrament	2026	SBUS	Aggregate	Aggregate	Diesel	978.5761745	21442.65244	21442.65244	0	14169.78301		2.627989581
Sacrament	2026	SBUS	Aggregate	Aggregate	Electricity	10.02998753	298.0278886	0	298.0278886	130.771368	0	
Sacrament	2026	SBUS	Aggregate	Aggregate	Natural Ga	21.01785741	543.0029585	543.0029585	0	304.3385753	0	
Sacrament	2026	T6 CAIRP heavy	Aggregate	Aggregate	Diesel	86.00951747	17475.87079	17475.87079	0	1976.498711		1.754150003
Sacrament	2026	T6 CAIRP heavy	Aggregate	Aggregate	Electricity	1.487381231	319.9836782	0	319.9836782	34.18002069	0	
Sacrament	2026	T6 CAIRP small	Aggregate	Aggregate	Diesel	79.61842908	4571.996471	4571.996471	0	1829.6315		0.499597629
Sacrament	2026	T6 CAIRP small	Aggregate	Aggregate	Electricity	2.201360175	142.3572475	0	142.3572475	50.58725682	0	
Sacrament	2026	T6 instate heavy	Aggregate	Aggregate	Diesel	1843.780194	94154.78748	94154.78748	0	21847.76304		10.53189865
Sacrament	2026	T6 instate heavy	Aggregate	Aggregate	Electricity	17.53914364	1223.031882	0	1223.031882	207.4182443	0	
Sacrament	2026	T6 instate heavy	Aggregate	Aggregate	Natural Ga	22.09919057	1176.416337	1176.416337	0	263.1639654	0	
Sacrament	2026	T6 instate small	Aggregate	Aggregate	Diesel	8555.548547	342046.6012	342046.6012	0	105744.0557		40.04575231
Sacrament	2026	T6 instate small	Aggregate	Aggregate	Electricity	130.3058239	5927.817245	0	5927.817245	1609.535127	0	
Sacrament	2026	T6 OOS heavy	Aggregate	Aggregate	Diesel	40.80334327	10424.70385	10424.70385	0	937.6608284		1.035209095
Sacrament	2026	T6 OOS small	Aggregate	Aggregate	Diesel	41.63624961	2382.316205	2382.316205	0	956.8010162		0.254734086
Sacrament	2026	T6 Public	Aggregate	Aggregate	Diesel	4314.307581	176583.4194	176583.4194	0	22132.39789		22.20162172
Sacrament	2026	T6 Public	Aggregate	Aggregate	Electricity	74.23363427	4012.929923	0	4012.929923	380.8185438	0	0
Sacrament	2026	T6 Public	Aggregate	Aggregate	Natural Ga	315.5112084	15001.6853	15001.6853	0	1618.572499	0	
Sacrament	2026	T6 Utility	Aggregate	Aggregate	Diesel	56.74396494	2370.191415	2370.191415	0	726.3227512		0.264506374
Sacrament	2026	T6 Utility	Aggregate	Aggregate	Electricity	1.658707928	76.41549833	0	76.41549833	21.23146147	0	0
Sacrament	2026	T6 Utility	Aggregate	Aggregate	Natural Ga	0.226900822	8.924759104	8.924759104	0	2.904330522	0	
Sacrament	2026	T6TS	Aggregate	Aggregate	Gasoline	1903.640767	88998.34196	88998.34196	0	38088.04447	18.97044875	
Sacrament	2026	T6TS	Aggregate	Aggregate	Electricity	14.9545781	1303.3502	0	1303.3502	299.2111987	0	
Sacrament	2026	T7 CAIRP	Aggregate	Aggregate	Diesel	944.067804	190960.7055	190960.7055	0	21694.67814		30.29237639
Sacrament	2026	T7 CAIRP	Aggregate	Aggregate	Electricity	20.48343024	4095.007002	0	4095.007002	470.709227	0	0
Sacrament	2026	T7 CAIRP	Aggregate	Aggregate	Natural Ga	16.00862633	3223.636003	3223.636003	0	367.878233	0	
Sacrament	2026	T7 NNOOS	Aggregate	Aggregate	Diesel	835.5760283	228,427	228,427	0	19201.53713		34.89437454
Sacrament	2026	T7 NOOS	Aggregate	Aggregate	Diesel	356.6723128	83,058	83,058	0	8196.329747		13.065692
Sacrament	2026	T7 Other Port	Aggregate	Aggregate	Diesel	11.32242384	2,158	2,158	0	185.234854		0.357830914
Sacrament	2026	T7 Other Port	Aggregate	Aggregate	Electricity	0.088238037	22	0	22	1.443574288	0	0
Sacrament	2026	T7 POAK	Aggregate	Aggregate	Diesel	37.29725649	3,758	3,758	0	610.1831162		0.637245925
Sacrament	2026	T7 POAK	Aggregate	Aggregate	Electricity	0.357840542	32	0	32	5.854271264	0	0
Sacrament	2026	T7 Public	Aggregate	Aggregate	Diesel	4151.305876	177,857	177,857	0	21296.19914		33.47375916
Sacrament	2026	T7 Public	Aggregate	Aggregate	Electricity	50.6323713	3,126	0	3,126	259.7440648	0	
Sacrament	2026	T7 Public	Aggregate	Aggregate	Natural Ga	70.34116703	3,357	3,357	0	360.8501869	0	0
Sacrament	2026	T7 Single	Aggregate	Aggregate	Diesel	2123.052317	118,067	118,067	0	19999.15283		19.96260812
Sacrament	2026	T7 Single	Aggregate	Aggregate	Electricity	33.2038691	2,427	0	2,427	312.780447	0	
Sacrament	2026	T7 Single	Aggregate	Aggregate	Natural Ga	60.89407745	3,269	3,269	0	573.6222095		0
Sacrament	2026	T7 SWCV	Aggregate	Aggregate	Diesel	263.6072934	17,098	17,098	0	1212.59355		7.201061966
Sacrament	2026	T7 SWCV	Aggregate	Aggregate	Electricity	10.62555179	678	0	678	48.87753825	0	
Sacrament	2026	T7 SWCV	Aggregate	Aggregate	Natural Ga	645.7133562	41,831	41,831	0	2970.281438	0	0
Sacrament	2026	T7 Tractor	Aggregate	Aggregate	Diesel	1078.537414	78,676	78,676	0	15671.14863		12.68992142
Sacrament	2026	T7 Tractor	Aggregate	Aggregate	Electricity	10.00988609	818	0	818	145.4436448	0	
Sacrament	2026	T7 Tractor	Aggregate	Aggregate	Natural Ga	11.80534026	816	816	0	171.5315939	0	0
Sacrament	2026	T7 Utility	Aggregate	Aggregate	Diesel	30.09060645	1,316	1,316	0	385.1597625		0.224192357
Sacrament	2026	T7 Utility	Aggregate	Aggregate	Electricity	0.315515578	20	0	20	4.038599395	0	
Sacrament	2026	T7IS	Aggregate	Aggregate	Gasoline	5.564040018	168	168	0	111.3253127	0.046390148	
Sacrament	2026	T7IS	Aggregate	Aggregate	Electricity	0.013175005	4	0	4	0.263605508	0	
Sacrament	2026	UBUS	Aggregate	Aggregate	Gasoline	189.1264912	14,348	14,348	0	756.5059648	3.053781283	
Sacrament	2026	UBUS	Aggregate	Aggregate	Diesel	6.215216529	294	294	0	24.86086612		0.03113556
Sacrament	2026	UBUS	Aggregate	Aggregate	Electricity	4.985657859	521	0	521	19.94263144	0	
Sacrament	2026	UBUS	Aggregate	Aggregate	Natural Ga	359.717215	34,419	34,419	0	1438.86886		
											1433.70	**294.06**

TOTAL	39,926,625
Total (Gas)	34,921,749
Total (Diesel)	2,496,762

Annual VMT
4,832,236

	Mix (%)	Miles	Gallons
Gas	98.8%	4,774,742	196,025
Diesel	1.2%	57,484	6,770

Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
All Project Land Uses	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071

Gas	98.8%
Diesel	1.2%

23.1	0.04
24.4	0.04
8.5	0.12

Energy Calculations Summary

Construction Fuel Usage Summary

Construction Year	Diesel Off-road Equipment (gallons)	Gasoline On-road (gallons)	Diesel On-road (gallons)	Diesel Combined
2022	14,448	5,372	76	14,524
2023	18,039	37,039	76	18,115
2024	1,302	36,759	76	1,377
2025	7,873	12,024	75	7,948
TOTAL	**41,661**	**91,194**	**303**	41,964

Total Gasoline	**91,194**	**gallons**
Total Diesel	**41,964**	**gallons**

Construction Offroad Equipment

2022

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40	17	0.6	1,209
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37	17	0.6	586
Grading	Excavators	2	8.00	158	0.38	60	0.6	1,729
Grading	Graders	1	8.00	187	0.41	60	0.6	1,104
Grading	Rubber Tired Dozers	1	8.00	247	0.40	60	0.6	1,423
Grading	Scrapers	2	8.00	367	0.48	60	0.6	5,073
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37	60	0.6	1,034
Building Construction	Cranes	1	7.00	231	0.29	33	0.6	464
Building Construction	Forklifts	3	8.00	89	0.20	33	0.6	423
Building Construction	Generator Sets	1	8.00	84	0.74	33	0.6	492
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37	33	0.6	746
Building Construction	Welders	1	8.00	46	0.45	33	0.6	164
							TOTAL	**14,448**

2023

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage
Building Construction	Cranes	1	7.00	231	0.29	260	0.6	3,658
Building Construction	Forklifts	3	8.00	89	0.20	260	0.6	3,332
Building Construction	Generator Sets	1	8.00	84	0.74	260	0.6	3,879
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37	260	0.6	5,879
Building Construction	Welders	1	8.00	46	0.45	260	0.6	1,292
							TOTAL	**18,039**

2024

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage
Building Construction	Cranes	1	7.00	231	0.29	262	0.6	3,686
Building Construction	Forklifts	3	8.00	89	0.20	262	0.6	3,358
Building Construction	Generator Sets	1	8.00	84	0.74	262	0.6	3,909
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37	262	0.6	5,924
Building Construction	Welders	1	8.00	46	0.45	262	0.6	1,302
							TOTAL	**18,178**

2025

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage

	Year	Start Date	End Date	Network Days
Site Preparation	2022	8/1/2022	8/23/2022	17
Grading	2022	8/24/2022	11/15/2022	60
Building Construction	2022	11/16/2022	12/31/2022	33
	2023	1/1/2023	12/31/2023	260
	2024	1/1/2024	12/31/2024	262
	2025	1/1/2025	4/21/2025	79
Paving	2025	4/22/2025	6/6/2025	34
Architectural Coating	2025	6/9/2025	7/24/2025	34

Building Construction	Cranes	1	7.00	231	0.29	79	0.6	1,111
Building Construction	Forklifts	3	8.00	89	0.20	79	0.6	1,012
Building Construction	Generator Sets	1	8.00	84	0.74	79	0.6	1,179
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37	79	0.6	1,786
Building Construction	Welders	1	8.00	46	0.45	79	0.6	392
Paving	Pavers	2	8.00	130	0.42	34	0.6	891
Paving	Paving Equipment	2	8.00	132	0.36	34	0.6	776
Paving	Rollers	2	8.00	80	0.38	34	0.6	496
Architectural Coating	Air Compressors	1	6.00	78	0.48	34	0.6	229
							TOTAL	**7,873**

Trips and VMT

2022

Phase Name	Daily Worker Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Hauling Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	**Total gallons of gasoline**	**Total gallons of diesel**
Site Preparation	18	17	306	0	0	10.00	6.50	20.00	3060	0	0	**121**	**0**
Grading	20	60	1200	0	0	10.00	6.50	20.00	12000	0	0	**473**	**0**
Building Construction	367	33	12111	71	0	10.00	6.50	20.00	121110	461.5	0	**4,778**	**76**
											TOTAL	**5,372**	**76**

2023

Phase Name	Daily Worker Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Hauling Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	**Total gallons of gasoline**	**Total gallons of diesel**
Building Construction	367	260	95420	71	0	10.00	6.50	20.00	954200	461.5	0	**37,039**	**76**
											TOTAL	**37,039**	**76**

2024

Phase Name	Daily Worker Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Hauling Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	**Total gallons of gasoline**	**Total gallons of diesel**
Building Construction	367	262	96154	71	0	10.00	6.50	20.00	961540	461.5	0	**36,759**	**76**
											TOTAL	**36,759**	**76**

2025

Phase Name	Daily Worker Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Hauling Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	**Total gallons of gasoline**	**Total gallons of diesel**
Building Construction	367	79	28993	71	0	10.00	6.50	20.00	289930	461.5	0	**10,899**	**75**
Architectural Coating	15	34	510	0	0	10.00	6.50	20.00	5100	0	0	**192**	**0**
Paving	73	34	2482	0	0	10.00	6.50	20.00	24820	0	0	**933**	**0**
											TOTAL	**12,024**	**75**

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Sacramento
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	CVMT miles/day	EVMT miles/day	Trips trips/day	Fuel gas 1,000 gallons/day	Diesel gas 1,000 gallons/day	Miles per gallon	Gasoline miles per gallon	Diesel miles per gallon
Sacramento	2022	LDA	Aggregate	Aggregate	Gasoline	498280.3185	17917435.6	17917435.6	0	2295902.336	644.537125	0.00	27.80	25.35	6.04
Sacramento	2022	LDT1	Aggregate	Aggregate	Gasoline	53385.04527	1674043.998	1674043.998	0	234015.9091	71.26492603	0.00	23.49		
Sacramento	2022	LDT2	Aggregate	Aggregate	Gasoline	223889.1265	8219931.936	8219931.936	0	1039827.381	368.4103964	0.00	22.31		
Sacramento	2022	T7 Tractor	Aggregate	Aggregate	Diesel	874.6914234	72842.33002	72842.33002	0	12709.26638	0.00	12.06334267	6.04		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Sacramento
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	CVMT miles/day	EVMT miles/day	Trips trips/day	Fuel gas 1,000 gallons/day	Diesel gas 1,000 gallons/day	Miles per gallon	Gasoline miles per gallon	Diesel miles per gallon
Sacramento	2023	LDA	Aggregate	Aggregate	Gasoline	495444.1701	18039887.07	18039887.07	0	2281180.251	638.6074247	0.00	28.25	25.76	6.07
Sacramento	2023	LDT1	Aggregate	Aggregate	Gasoline	51757.60145	1638073.93	1638073.93	0	226418.361	68.8387086	0.00	23.80		
Sacramento	2023	LDT2	Aggregate	Aggregate	Gasoline	228403.2253	8495404.827	8495404.827	0	1060056.933	373.3642939	0.00	22.75		
Sacramento	2023	T7 Tractor	Aggregate	Aggregate	Diesel	917.7542763	74396.80266	74396.80266	0	13334.96964	0.00	12.25004566	6.07		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Sacramento
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	CVMT miles/day	EVMT miles/day	Trips trips/day	Fuel gas 1,000 gallons/day	Diesel gas 1,000 gallons/day	Miles per gallon	Gasoline miles per gallon	Diesel miles per gallon
Sacrament	2024	LDA	Aggregate	Aggregate	Gasoline	493200.1993	18074528.65	18074528.65	0	2269233.534	630.0875563	0.00	28.69	26.16	6.11
Sacrament	2024	LDT1	Aggregate	Aggregate	Gasoline	50226.44621	1595989.731	1595989.731	0	219342.9065	66.24563327	0.00	24.09		
Sacrament	2024	LDT2	Aggregate	Aggregate	Gasoline	232779.326	8714872.614	8714872.614	0	1079554.899	376.1530767	0.00	23.17		
Sacrament	2024	T7 Tractor	Aggregate	Aggregate	Diesel	974.1598058	75896.02217	75896.02217	0	14154.54198	0.00	12.42667686	6.11		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Sacramento
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	CVMT miles/day	EVMT miles/day	Trips trips/day	Fuel gas 1,000 gallons/day	Diesel gas 1,000 gallons/day	Miles per gallon	Gasoline miles per gallon	Diesel miles per gallon
Sacrament	2025	LDA	Aggregate	Aggregate	Gasoline	491398.2875	18017006.84	18017006.84	0	2259539.787	617.4841021	0.00	29.18	26.60	6.15
Sacrament	2025	LDT1	Aggregate	Aggregate	Gasoline	48785.93501	1547597.8	1547597.8	0	212712.1866	63.33573387	0.00	24.43		
Sacrament	2025	LDT2	Aggregate	Aggregate	Gasoline	237055.1324	8875175.116	8875175.116	0	1098484.37	375.8620765	0.00	23.61		
Sacrament	2025	T7 Tractor	Aggregate	Aggregate	Diesel	1028.071352	77318.93006	77318.93006	0	14937.87675	0.00	12.56836859	6.15		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Minor Project Health Effects Tool

Latitude	38.587036	**<-- Step 1: Input latitude (Please chose a value between 38.0 and 39.7)**
Longitude	-121.268507	**<-- Step 2: Input longitude (Please chose a value between -122.5 and -120.0)**

PM2.5 Health Endpoint	Age Range[1]	Incidences Across the Reduced Sacramento 4-km Modeling Domain Resulting from Project Emissions (per year)[2,5] (Mean)	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2] (Mean)	Percent of Background Health Incidences Across the 5-Air-District Region[3]	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
Respiratory					
Emergency Room Visits, Asthma	0 - 99	0.94	0.87	0.0047%	18419
Hospital Admissions, Asthma	0 - 64	0.061	0.057	0.0031%	1846
Hospital Admissions, All Respiratory	65 - 99	0.34	0.30	0.0015%	19644
Cardiovascular					
Hospital Admissions, All Cardiovascular (less Myocardial Infarctions)	65 - 99	0.19	0.17	0.00071%	24037
Acute Myocardial Infarction, Nonfatal	18 - 24	0.000077	0.000071	0.0019%	4
Acute Myocardial Infarction, Nonfatal	25 - 44	0.0070	0.0066	0.0022%	308
Acute Myocardial Infarction, Nonfatal	45 - 54	0.018	0.017	0.0023%	741
Acute Myocardial Infarction, Nonfatal	55 - 64	0.029	0.028	0.0022%	1239
Acute Myocardial Infarction, Nonfatal	65 - 99	0.12	0.11	0.0022%	5052
Mortality					
Mortality, All Cause	30 - 99	2.2	2.0	0.0045%	44766

Ozone Health Endpoint	Age Range[1]	Incidences Across the Reduced Sacramento 4-km Modeling Domain Resulting from Project Emissions (per year)[2,5] (Mean)	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2] (Mean)	Percent of Background Health Incidences Across the 5-Air-District Region[3]	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
Respiratory					
Hospital Admissions, All Respiratory	65 - 99	0.079	0.064	0.00032%	19644
Emergency Room Visits, Asthma	0 - 17	0.33	0.27	0.0046%	5859
Emergency Room Visits, Asthma	18 - 99	0.55	0.47	0.0037%	12560
Mortality					
Mortality, Non-Accidental	0 - 99	0.050	0.042	0.00014%	30386

1. Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the USEPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.

2. Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or “background health incidence”) values. Health effects are shown for the Reduced Sacramento 4-km Modeling Domain and the 5-Air-District Region.

3. The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, the background incidence rates cover the 5-Air-District Region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP.

4. The total number of health incidences across the 5-Air-District Region is calculated based on the modeling data. The information is presented to assist in providing overall health context.

5. The technical specifications and map for the Reduced Sacramento 4-km Modeling Domain are included in Appendix A, Table A-1 and Appendix B, Figure B-2 of the *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District.*

Sac Metro Air District Minor Project Health Effects Tool, version 2, published June 2020

Appendix E

Noise Modeling

Attenuation Calculations for Stationary Noise Sources

KEY: Orange cells are for input.

Grey cells are intermediate calculations performed by the model.

Green cells are data to present in a written analysis (output).

STEP 1: Identify the noise source and enter the reference noise level (dBA and distance).

STEP 2: Select the ground type (hard or soft), and enter the source and receiver heights.

STEP 3: Select the distance to the receiver.

Noise Source/ID	Reference Noise Level			Attenuation Characteristics				Attenuated Noise Level at Receptor		
	noise level (dBA)	@	distance (ft)	Ground Type (soft/hard)	Source Height (ft)	Receiver Height (ft)	Ground Factor	noise level (dBA)	@	distance (ft)
				hard	12	5	0.00			
				hard	12	5	0.00			
HVAC	60.0	@	20	soft	12	5	0.60	34	@	200
				soft	12	5	0.60			
				soft	12	5	0.60			
				soft	12	5	0.60			
							0.66			
							0.66			
							0.66			
							0.66			
							0.66			
							0.66			
							0.66			
							0.66			

Notes:

Estimates of attenuated noise levels do not account for reductions from intervening barriers, including walls, trees, vegetation, or structures of any type.

Computation of the attenuated noise level is based on the equation presented on pg. 12-3 and 12-4 of FTA 2006.

Computation of the ground factor is based on the equation presentd in Figure 6-23 on pg. 6-23 of FTA 2006, where the distance of the reference noise leve can be adjusted and the usage factor is not applied (i.e., the usage factor is equal to 1).

Sources:

Federal Transit Association (FTA). 2006 (May). Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06. Washington D.C. Available: <http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf>. Accessed: September 24, 2010.

Construction Source Noise Prediction Model

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold	50	90.2
Residence 1	200	78.2
Office	140	81.3

Equipment	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Excavator	85	1
Dozer	85	1
Backhoe	80	1
Grader	85	1

Ground Type	HARD
Source Height	8
Receiver Height	5
Ground Factor[2]	0.00

Predicted Noise Level [3]	L_{eq} dBA at 50 feet[3]
Excavator	85.0
Dozer	85.0
Backhoe	80.0
Grader	85.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
90.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

Construction Source Noise Prediction Model

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold	50	86.2
Residence 1	200	74.2
Office	140	77.3

Equipment	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Excavator	85	0.4
Dozer	85	0.4
Backhoe	80	0.4
Grader	85	0.4

Ground Type	HARD
Source Height	8
Receiver Height	5
Ground Factor[2]	0.00

Predicted Noise Level [3]	L_{eq} dBA at 50 feet[3]
Excavator	81.0
Dozer	81.0
Backhoe	76.0
Grader	81.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

Distance Propagation Calculations for Stationary Sources of Ground Vibration

KEY: Orange cells are for input.

Grey cells are intermediate calculations performed by the model.

Green cells are data to present in a written analysis (output).

STEP 1: Determine units in which to perform calculation.

— If vibration decibels (VdB), then use Table A and proceed to Steps 2A and 3A.

— If peak particle velocity (PPV), then use Table B and proceed to Steps 2B and 3B.

STEP 2A: Identify the vibration source and enter the reference vibration level (VdB) and distance.

STEP 3A: Select the distance to the receiver.

Table A. Propagation of vibration decibels (VdB) with distance

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
	vibration level (VdB)	@	distance (ft)	vibration level (VdB)	@	distance (ft)
Roller	94	@	25	71.6	@	140

The Lv metric (VdB) is used to assess the likelihood for vibration to result in human annoyance.

STEP 2B: Identify the vibration source and enter the reference peak particle velocity (PPV) and distance.

STEP 3B: Select the distance to the receiver.

Table B. Propagation of peak particle velocity (PPV) with distance

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
	vibration level (PPV)	@	distance (ft)	vibration level (PPV)	@	distance (ft)
Roller	0.210	@	25	0.016	@	140

The PPV metric (in/sec) is used for assessing the likelihood for the potential of structural damage.

Notes:

Computation of propagated vibration levels is based on the equations presented on pg. 185 of FTA 2018. Estimates of attenuated vibration levels do not account for reductions from intervening underground barriers or other underground structures of any type, or changes in soil type.

Federal Transit Association (FTA). 2018 (September). Transit Noise and Vibration Impact Assessment Manual. FTA Report N
https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-

Io. 0123. Washington, D.C. Accessed: December 20, 2020. Page Available:

Traffic Noise Spreadsheet Calculator

Project: **Residences at Capital Center**

Number	Name	Segment Description and Location From	To	Existing Conditions	Existing + Project Conditions	Δ Existing – Existing + Project	Cumulative Conditions	Cumulative +Project Conditions	Δ Cumulative – Cumulative + Project
Summary of Net Changes									
1	Zinfandel Dr	White Rock Rd	International Dr	72.9	72.9	0.0			
2	Zinfandel Dr	US-50 EB Ramps	White Rock Rd	75.3	75.4	0.1			
3	Zinfandel Dr	US-50 EB Ramps	US-50 WB Ramps	74.5	74.6	0.1			
4	Zinfandel Dr	Folsom Blvd	US-50 WB Ramps	73.4	73.5	0.0			
5	White Rock Rd	Zinfandel Dr	Kigore Rd	71.8	72.1	0.3			
6	White Rock Rd	Kilgore Rd	Sunrise Blvd	71.9	72.2	0.3			
7	Kilgore Rd	Folsom Blvd	White Rock Rd	68.4	68.4	0.0			
8	Kilgore Rd	White Rock Rd	International Dr	66.4	68.6	2.2			
9	White Rock Rd	Sunrise Blvd	Grant Line Rd	68.9	69.1	0.2			
10	Sunrise Blvd	White Rock Rd	Douglas Rd	76.3	76.3	0.0			
11	Sunrise Blvd	Folsom Blvd	White Rock Rd	77.8	77.9	0.1			
12	Sunrise Blvd	US-50 EB Ramps	Folsom Blvd	78.2	78.2	0.1			
13	Sunrise Blvd	US-50 WB Ramps	US-50 EB Ramps	76.7	76.8	0.1			
14	Sunrise Blvd	US-50 EB Ramps	Coloma	79.6	79.7	0.0			

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Traffic Noise Spreadsheet Calculator

Project: Residences at Capital Ce | Existing Conditions

Noise Level Descriptor: Ldn
Site Conditions: Soft
Traffic Input: Peak
Traffic K-Factor: 10

		Segment Description and Location		Input										Output				
						Distance to Directional Centerline, (feet)[4]		Traffic Distribution Characteristics										
Number	Name	From	To	Peak Hour Volume	Speed (mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	Ldn, (dBA)[5,6,7]	Distance to Contour, (feet)[3] 70 dBA	65 dBA	60 dBA	55 dBA
Existing Conditions																		
1	Zinfandel Dr	White Rock Rd	International Dr	28,910	35	80	127	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	72.9	158	340	732	1577
2	Zinfandel Dr	US-50 EB Ramps	White Rock Rd	46,520	35	73	133	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	75.3	222	479	1032	2223
3	Zinfandel Dr	US-50 EB Ramps	US-50 WB Ramps	42,770	35	83	123	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	74.5	203	437	940	2026
4	Zinfandel Dr	Folsom Blvd	US-50 WB Ramps	33,040	35	85	117	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	73.4	169	364	784	1689
5	White Rock Rd	Zinfandel Dr	Kigore Rd	10,990	45	80	125	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	71.8	132	284	611	1316
6	White Rock Rd	Kilgore Rd	Sunrise Blvd	11,170	45	80	125	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	71.9	133	287	618	1331
7	Kilgore Rd	Folsom Blvd	White Rock Rd	5,320	45	95	107	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	68.4	78	169	364	784
8	Kilgore Rd	White Rock Rd	International Dr	4,570	40	84	118	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	66.4	58	124	268	577
9	White Rock Rd	Sunrise Blvd	Grant Line Rd	5,790	45	80	130	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	68.9	86	186	401	864
10	Sunrise Blvd	White Rock Rd	Douglas Rd	26,780	45	70	120	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	76.3	242	522	1125	2423
11	Sunrise Blvd	Folsom Blvd	White Rock Rd	44,730	45	80	130	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	77.8	338	728	1568	3378
12	Sunrise Blvd	US-50 EB Ramps	Folsom Blvd	44,820	45	70	150	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	78.2	359	774	1667	3592
13	Sunrise Blvd	US-50 WB Ramps	US-50 EB Ramps	36,510	45	85	125	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	76.7	290	626	1348	2904
14	Sunrise Blvd	US-50 EB Ramps	Coloma	63,710	45	75	130	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	79.6	433	932	2008	4327
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Traffic Noise Spreadsheet Calculator

Project: Residences at Capital Cer Existing + Project Conditions

Noise Level Descriptor: Ldn
Site Conditions: Soft
Traffic Input: Peak
Traffic K-Factor: 10

Segment Description and Location				Input										Output				
						Distance to Directional Centerline, (feet)[4]		Traffic Distribution Characteristics										
Number	Name	From	To	Peak Hour Volume	Speed (mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	Ldn, (dBA)[5,6,7]	Distance to Contour, (feet)[3] 70 dBA	65 dBA	60 dBA	55 dBA
Existing + Project Conditions																		
1	Zinfandel Dr	White Rock Rd	International Dr	28,910	35	80	127	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	72.9	158	340	732	1577
2	Zinfandel Dr	US-50 EB Ramps	White Rock Rd	47,407	35	73	133	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	75.4	225	485	1045	2251
3	Zinfandel Dr	US-50 EB Ramps	US-50 WB Ramps	43,302	35	83	123	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	74.6	204	440	948	2043
4	Zinfandel Dr	Folsom Blvd	US-50 WB Ramps	33,217	35	85	117	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	73.5	170	365	787	1695
5	White Rock Rd	Zinfandel Dr	Kigore Rd	11,877	45	80	125	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	72.1	139	299	643	1386
6	White Rock Rd	Kilgore Rd	Sunrise Blvd	11,969	45	80	125	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	72.2	139	300	647	1393
7	Kilgore Rd	Folsom Blvd	White Rock Rd	5,320	45	95	107	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	68.4	78	169	364	784
8	Kilgore Rd	White Rock Rd	International Dr	7,528	40	84	118	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	68.6	81	173	374	805
9	White Rock Rd	Sunrise Blvd	Grant Line Rd	5,997	45	80	130	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	69.1	88	191	411	885
10	Sunrise Blvd	White Rock Rd	Douglas Rd	26,780	45	70	120	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	76.3	242	522	1125	2423
11	Sunrise Blvd	Folsom Blvd	White Rock Rd	45,322	45	80	130	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	77.9	341	734	1582	3407
12	Sunrise Blvd	US-50 EB Ramps	Folsom Blvd	45,412	45	70	150	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	78.2	362	781	1682	3624
13	Sunrise Blvd	US-50 WB Ramps	US-50 EB Ramps	36,998	45	85	125	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	76.8	293	631	1360	2930
14	Sunrise Blvd	US-50 EB Ramps	Coloma	64,095	45	75	130	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	79.7	434	936	2017	4345
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					
					35	100	100	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%					

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Citation #	Citations	
1	Caltrans Technical Noise Supplement. 2009 (November). Table (5-11), Pg 5-60.	Caltrans Technical Noise Supplement. 2013 (September). Table (4-2), Pg 4-17
2	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-26), Pg 5-60.	Caltrans Technical Noise Supplement. 2013 (September). Equation (4-5), Pg 4
3	Caltrans Technical Noise Supplement. 2009 (November). Equation (2-16), Pg 2-32.	FHWA 2004 TNM Version 2.5
4	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-11), Pg 5-47, 48.	FHWA 2004 TNM Version 2.5
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6	Caltrans Technical Noise Supplement. 2009 (November). Equation (2-27), Pg 2-57.	Caltrans Technical Noise Supplement. 2013 (September). Equation (2-24), Pg
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10	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-9), Pg 5-45.	FHWA 2004 TNM Version 2.5
11	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-13), Pg 5-49.	FHWA 2004 TNM Version 2.5
12	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-14), Pg 5-49.	FHWA 2004 TNM Version 2.5
13	Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (16), Pg 67	
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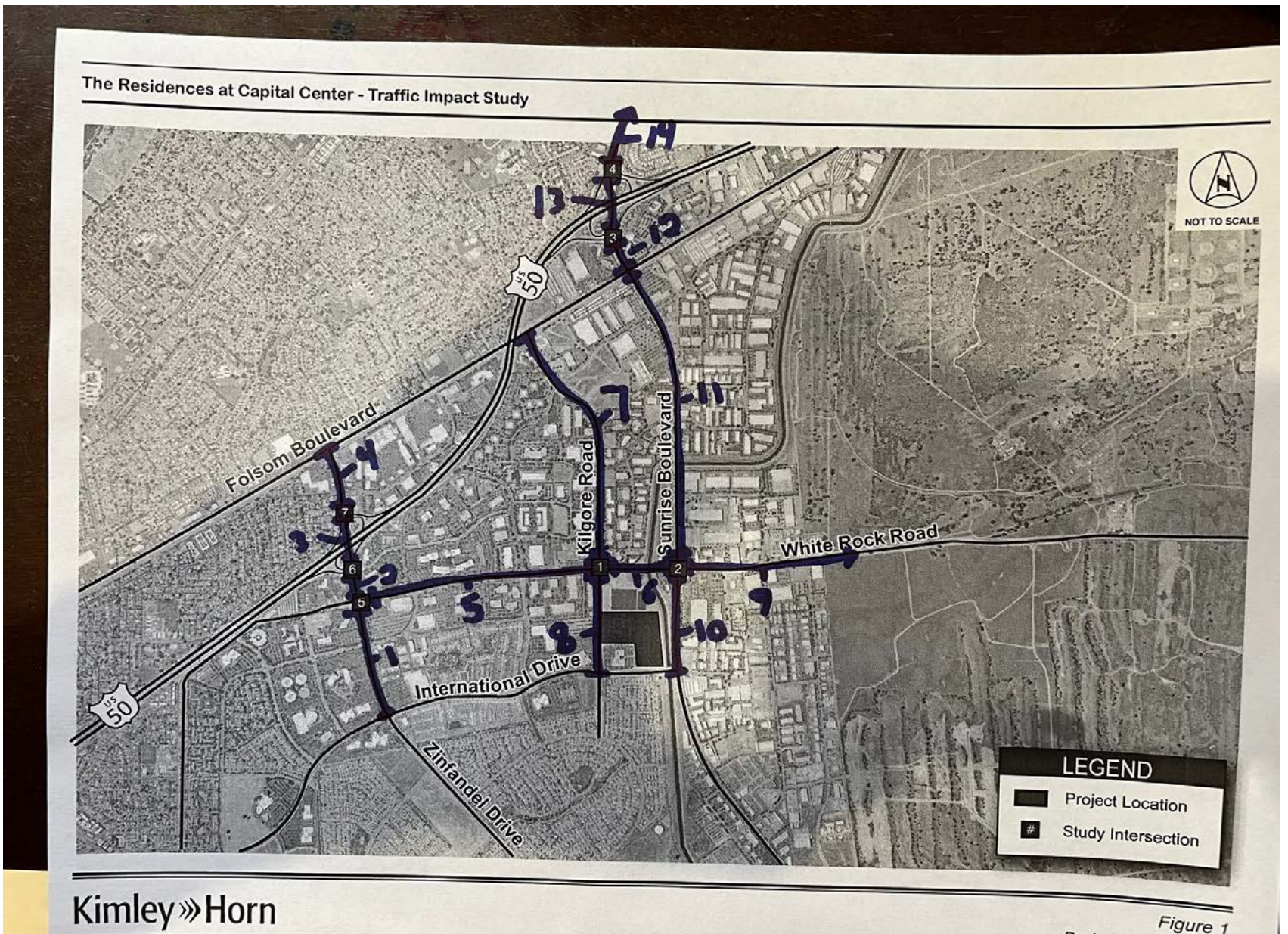
California Department of Transportation (Caltrans). 2009 (November). Technical Noise Supplement. Available: http://www.dot.ca.gov/hq/env/noise/pub/tens_complete.pdf. Acces August 17, 2017.



Existing Volumes

Segment	From	To	Volume
1	White Rock Rd	International Dr	28910
2	US-50 EB Ramps	White Rock Rd	46520
3	US-50 EB Ramps	US-50 WB Ramps	42770
4	Folsom Blvd	US-50 WB Ramps	33040
5	Zinfandel Dr	Kigore Rd	10990
6	Kilgore Rd	Sunrise Blvd	11170
7	Folsom Blvd	White Rock Rd	5320
8	White Rock Rd	International Dr	4570
9	Sunrise Blvd	Grant Line Rd	5790
10	White Rock Rd	Douglas Rd	26780
11	Folsom Blvd	White Rock Rd	44730
12	US-50 EB Ramps	Folsom Blvd	44820
13	US-50 WB Ramps	US-50 EB Ramps	36510
14	US-50 EB Ramps	Coloma	63710

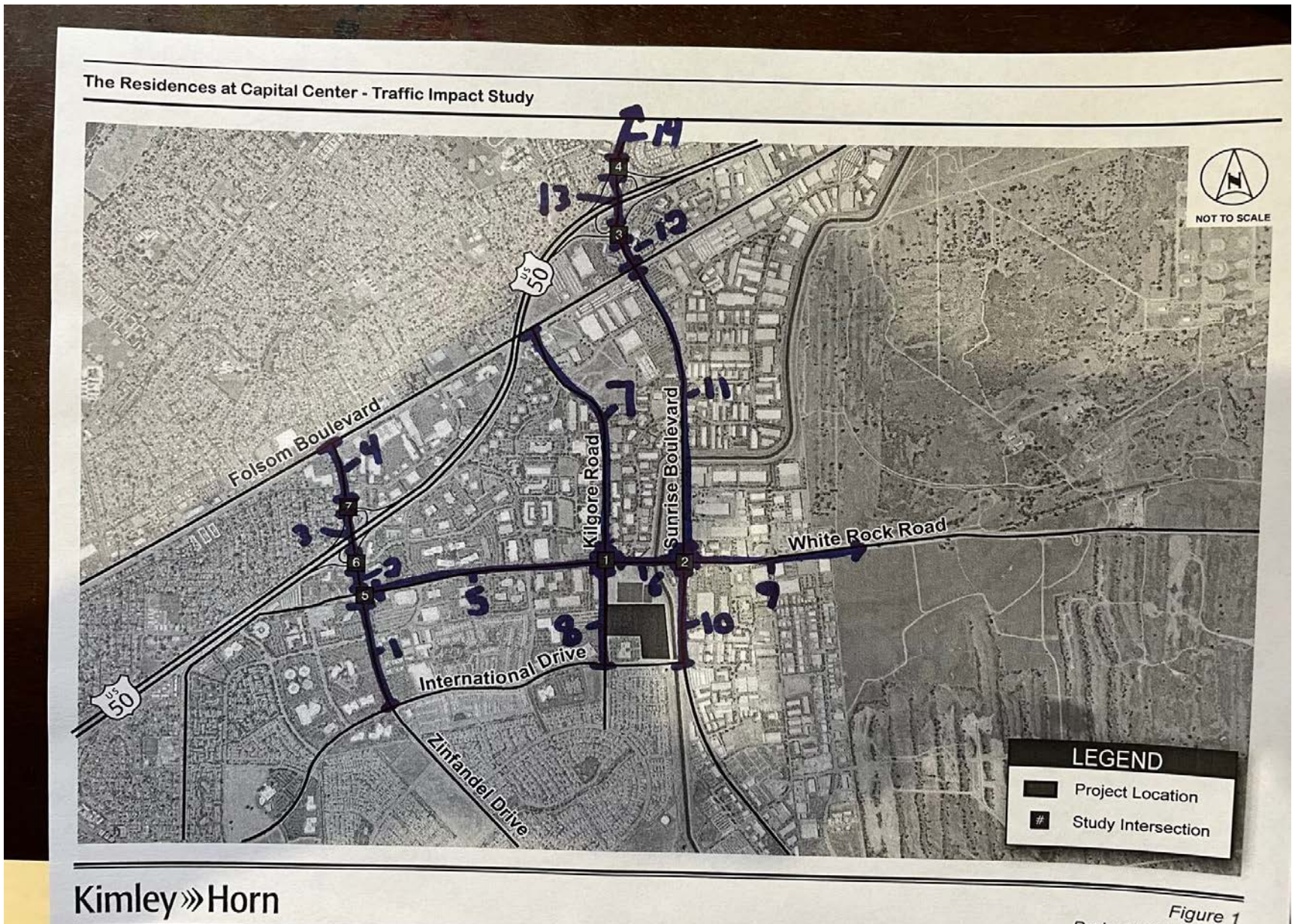


Figure 1
Project Vicinity Map

Existing + Project Volumes

Segment	From	To	Volume
1	White Rock Rd	International Dr	28910
2	US-50 EB Ramps	White Rock Rd	47407
3	US-50 EB Ramps	US-50 WB Ramps	43302
4	Folsom Blvd	US-50 WB Ramps	33217
5	Zinfandel Dr	Kigore Rd	11877
6	Kilgore Rd	Sunrise Blvd	11969
7	Folsom Blvd	White Rock Rd	5320
8	White Rock Rd	International Dr	7528
9	Sunrise Blvd	Grant Line Rd	5997
10	White Rock Rd	Douglas Rd	26780
11	Folsom Blvd	White Rock Rd	45322
12	US-50 EB Ramps	Folsom Blvd	45412
13	US-50 WB Ramps	US-50 EB Ramps	36998
14	US-50 EB Ramps	Coloma	64095

Traffic Impact Study

Residences at Capital Center
City of Rancho Cordova, California

August 11, 2022

Prepared for:

Cole Partners Development Company

Prepared by:
Kimley»Horn

555 Capitol Mall, Suite 300
Sacramento, California 95814

Phone: (916) 858-5800

EXECUTIVE SUMMARY

This report documents the results of a traffic impact study completed for Residences at Capitol Center project (the "proposed project" or "project"). The proposed project will be located on the vacant parcel located at the northeast corner of the Kilgore Road intersection with Crawford Dive in Rancho Cordova, California. This study was performed in accordance with the standards established by the Circulation Element of the City of Rancho Cordova's General Plan.

The proposed project will include 417 multi-family units, of which 177 will be townhomes and 240 will be apartments. In addition, the project will include a commercial component that will cover up to 9,000 square-feet of floor space. Access to the project site will be provided via two full access driveways, one located on Crawford Drive and the other on Kilgore Road.

This analysis includes evaluation of the following transportation facilities:

1. Kilgore Rd @ White Rock Rd
2. Sunrise Blvd @ White Rock Rd
3. Sunrise Blvd @ US-50 EB Ramps
4. Sunrise Blvd @ US-50 WB Ramps
5. Zinfandel Dr @ White Rock Rd
6. Zinfandel Dr @ US-50 EB Ramps
7. Zinfandel Dr @ US-50 WB Ramps

This traffic impact analysis was conducted for the study facilities listed above for the following scenarios:

A. Existing (2022) Conditions
B. Opening Year (2024) plus Proposed Project Conditions
C. Cumulative (2040) Conditions
D. Cumulative (2040) plus Proposed Project Conditions

Significant findings of this study include:

- The proposed project is anticipated to generate 3,220 new daily trips, with 253 and 268 trips occurring during the AM and PM peak-hours, respectively.
    - Internal trip reduction to assess how the project's residential and proximate commercial component trips might interact was generated using the NCHRP 684 Trip Capture Estimation Tool[1]. This resulted in a reduction of 262 daily trips, 20 AM peak-hour trips, and 24 PM peak-hour trips.
    - The final net external Project trip generation is 2,958 daily trips, 233 AM peak-hour trips, and 244 PM peak-hour trips.
- The addition of the proposed project to the Opening Year and Cumulative scenarios does not result in deficiencies at any of the study intersections. All study intersections operate within the acceptable Level of Service (LOS) threshold established by the City of Rancho Cordova's General Plan.
- The addition of the proposed project to Opening Year and Cumulative scenarios does not result in significant queueing deficiencies at any of the US-50 off-ramps. Current ramp lengths are sufficient to accommodate vehicles without creating vehicle spillback into the traveled way of US-50 at all study intersection locations.

[1] *Trip Generation Handbook (3rd Edition)*, Institute of Transportation Engineers (ITE), August 2014

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INTRODUCTION

This report documents the results of a traffic impact study completed for the Residences at Capitol Center project (the "proposed project" or "project"). The proposed project will be located on the vacant parcel located at the northeast corner of the Kilgore Road intersection with Crawford Dive in Rancho Cordova, California. The purpose of this impact analysis is to identify potential environmental impacts to transportation facilities as required by the California Environmental Quality Act (CEQA). This study was performed in accordance with the standards established by the Circulation Element of the City of Rancho Cordova's General Plan[2].

PROJECT DESCRIPTION

The proposed project will include 417 multi-family units of which 177 will be townhomes and 240 will be apartments. In addition, the Project will include a commercial component that will cover up to 9,000 square-feet of floor space. Access to the project site will be provided via two full access driveways, one on Crawford Drive and one on Kilgore Road.

The project location, study intersections and study segments are depicted in **Figure 1.** The proposed project site plan is shown in **Figure 2**. **Figure 3** illustrates the existing study intersections facilities, traffic control, and lane configurations.

This traffic impact study was conducted for the following scenarios:

A. Existing (2022) Conditions
B. Opening Year (2024) plus Proposed Project Conditions
C. Cumulative (2040) Conditions
D. Cumulative (2040) plus Proposed Project Conditions

The following transportation facilities are included in this evaluation:

1. Kilgore Rd @ White Rock Rd
2. Sunrise Blvd @ White Rock Rd
3. Sunrise Blvd @ US-50 EB Ramps
4. Sunrise Blvd @ US-50 WB Ramps
5. Zinfandel Dr @ White Rock Rd
6. Zinfandel Dr @ US-50 EB Ramps
7. Zinfandel Dr @ US-50 WB Ramps

[2] *City of Rancho Cordova General Plan: Circulation Element, May 2015,* City of Rancho Cordova

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Figure 1
Project Vicinity Map

PROJECT SUMMARY

GROSS AREA	+/-22.9 ac
TOTAL UNITS	417 units
DENSITY	+/-18.3 du/ac
OPEN AIR COMMUNITY BEER GARDEN	0.72 ac
COMMERCIAL PARKING	55 spaces

TOWN-HOMES SUMMARY

TOTAL UNITS	177 units
GARAGES	354 spaces
SURFACE PARKING	85 spaces
TOTAL PARKING	439 spaces
RATIO	+/-2.48

APARTMENT SUMMARY

TOTAL UNITS	240 units
CARPORT	240 spaces
SURFACE PARKING	203 spaces
TOTAL PARKING	443 spaces
RATIO	+/- 1.85

1. New Pedestrian Connection Cross Walk
2. Promenade Entrance
3. Club House Entry
4. Townhomes Clubhouse Leasing Office
   +/-6,000 sf.
   1 Story
   Fitness
   Pool, Spa
5. Open Air Community Beer Garden
   +/-0.72 ac
   +/-3,425 sf Building Coverage
   +/-5,400 sf Outdoor Seating
6. Townhomes
   +/-9.93 ac
   17.82 du/ac
   177 Units
   Front loaded & Rear loaded
   2.48 Parking Ratio
7. Open Space
8. Internal Pedestrian Connection Trail
9. Multi-Family Main Entry
10. Multi-Family
    +/-8.71 ac
    27.55 du/ac
    240 units
    24plex & 36plex
    1.85 parking ratio
11. Multi-Family leasing office
    Fitness
    +/-6,000 sf.
    2 story
12. Emergency Vehicular Access
13. Multi-Family
    Bldg A
    24plex
    3 Story
14. Multi-Family
    Bldg B
    36 plex
    3 Story

OVERALL SITE PLAN

0 60' 120' 240'
Scale: 1" = 60' (on 24x36 sheet)

GRUPE

COLE PARTNERS DEVELOPMENT COMPANY

A0.01

OVERALL SITE PLAN

THE RESIDENCES AT CAPITAL CENTER

Rancho Cordova, CA

November 19, 2021 | MR200458.00

BSB DESIGN

The drawings presented are illustrative of character and design intent only, and are subject to change based upon final design considerations (i.e. applicable codes, structural, and MEP design requirements, unit plan / floor plan changes, etc.) © 2021 BSB Design, Inc.

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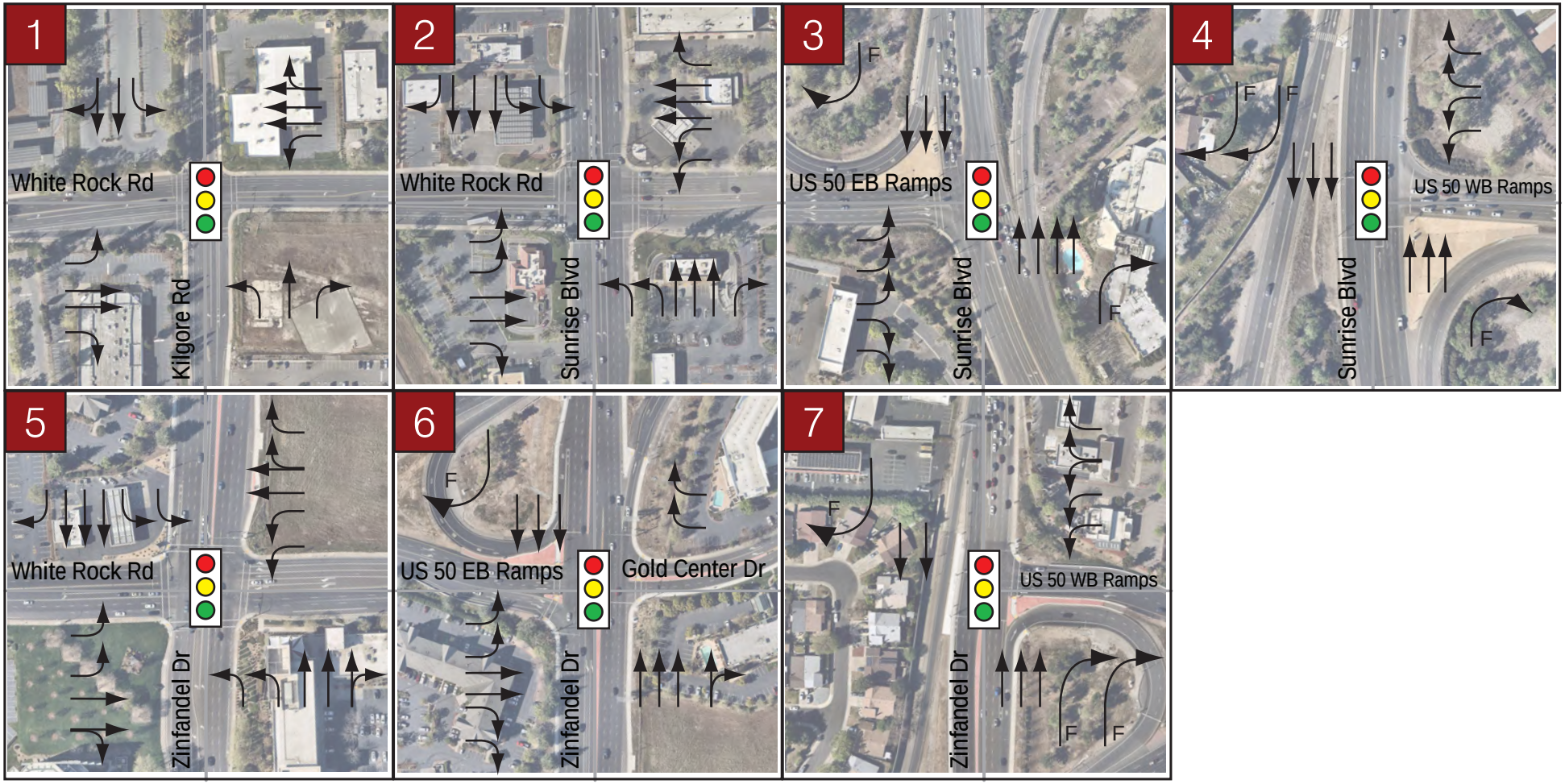
Figure 2
Project Site Plan



LEGEND	
#	Study Intersection
	Signalized Intersection
F	Free Movement

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Figure 3
Study Intersections, Traffic Control, and Lane Geometry

PROJECT AREA ROADWAYS

The following are descriptions of primary roadways in the project vicinity:

US Route 50 (US-50) is an east-west freeway facility located approximately three quarters of a mile north of the proposed project. US-50 connects Rancho Cordova with Sacramento to the west and El Dorado County to the east. Primary access to the project site from US-50 is provided at the Sunrise Boulevard and Zinfandel Drive interchanges. US-50 carries approximately 124,000 vehicles per day[3] with five lanes in each direction proximate to these two interchanges.

Sunrise Boulevard is a north-south arterial east of the project site across the Folsom South Canal. It connects the project site to north Rancho Cordova and Placer County while providing access to US-50. Numerous commercial developments are located along Sunrise Boulevard both north and south of the project site.

Zinfandel Drive is a north-south arterial connecting the project site to US-50 as well as the commercial, industrial, and residential areas northwest of the project site.

White Rock Road is an east-west arterial connecting Sunrise Boulevard and Zinfandel Drive within the southern half of Rancho Cordova's city limits.

TRANSPORTATION IMPACT STUDY METHODOLOGY

This study was performed in accordance with the standards established by the Circulation Element of the City of Rancho Cordova's General Plan[4]. As the Project and associated study intersections fall within the City of Rancho Cordova, Level of Service (LOS) D will be used as the threshold for evaluating acceptable intersection operations consistent with the City's General Plan criteria.

Level of Service Definitions

Analysis of transportation facility significant environmental impacts is based on the concept of Level of Service (LOS). The LOS of a facility is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity.

Intersection Analysis

Levels of Service for this study were determined using methods defined in the *Highway Capacity Manual (HCM) 6th Edition* and appropriate traffic analysis software. The HCM includes procedures for analyzing side-street stop controlled (SSSC), all-way stop controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement. The AWSC and signalized intersection procedure defines LOS as a function of average control delay for the intersection as a whole. Table 1 presents intersection LOS definitions as defined in the HCM.

[3] Caltrans Traffic Counts, 2020. http://www.dot.ca.gov/trafficops/census/
[4] *City of Rancho Cordova General Plan: Circulation Element, May 2015,* City of Rancho Cordova

Table 1 – Intersection Level of Service Criteria

Level of Service (LOS)	Unsignalized	Signalized
	Average Control Delay* (sec/veh)	Average Control Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F	> 50	> 80

Source: Highway Capacity Manual, 2010
* Applied to the worst lane/lane group(s) for SSSC

ASSESSMENT OF PROPOSED PROJECT

Proposed Project Trip Generation and Assignment

The number of trips anticipated to be generated by the proposed project in both Opening Year and Cumulative conditions was approximated using data included in the *Trip Generation Manual, 11th Edition,* published by the Institute of Transportation Engineers (ITE). ITE Land Use Code 220 (Multifamily Housing (Low-Rise)) was used to represent the project's townhome development component, while ITE Land Use Code 221 (Multifamily Housing (Mid-Rise)) was used to represent the project's apartment development component. ITE Land Use Code 932 (High-Turnover (Sit-Down) Restaurant) was used to represent the commercial component of the project. Regression equations provided by ITE were used to estimate the number of trips anticipated to be generated by the project's residential components while ITE's average rate was used to estimate the number of trips for the project's non-residential component as an equation was not available. Trips generated by the proposed project are presented in Table 2.

Table 2 – Proposed Project Trip Generation

ITE Land Use Code	Land Use	# Units/ ksf	Daily Trips	AM Peak-Hour			PM Peak-Hour		
				Total	In	Out	Total	In	Out
220	Multifamily Housing (Low-Rise)	177	1,210	78	19	59	97	61	36
221	Multifamily Housing (Mid-Rise)	240	1,098	94	22	72	94	57	37
932	High-Turnover (Sit-Down) Restaurant	9	911	81	45	36	77	47	30
Total Project Trips			**3,220**	**253**	**86**	**167**	**268**	**165**	**103**
Internal Capture (8% Daily/AM Peak-hour, 9% PM Peak-hour)			262	20	10	10	24	12	12
Net External Project Trips			***2,958***	***233***	***76***	***157***	***244***	***153***	***91***

As shown in Table 2, the proposed project is estimated to generate 3,220 new daily trips, with 253 and 268 trips occurring during the respective AM and PM peak-hours. Internal trip reduction to assess how the project's residential and commercial component trips might interact was generated using the NCHRP 684 Trip Capture Estimation Tool[5]. This resulted in a reduction of 262 daily trips, 20 AM peak-hour trips, and 24 PM peak-hour trips. The final net external Project trip generation is 2,958 daily trips, 233 AM peak-hour trips, and 244 PM peak-hour trips.

Project trip distribution was developed using the City of Rancho Cordova's travel demand model. The proposed project was added to the model and the socioeconomic characteristics of the population living in the development along Tower Park Drive, west of Prospect Park Drive, were used to develop the socioeconomic characteristics of the population assumed to occupy the proposed Project. Trip distribution percentages developed from the model run are illustrated in Figure 4.

[5] *Trip Generation Handbook (3rd Edition)*, Institute of Transportation Engineers (ITE), August 2014

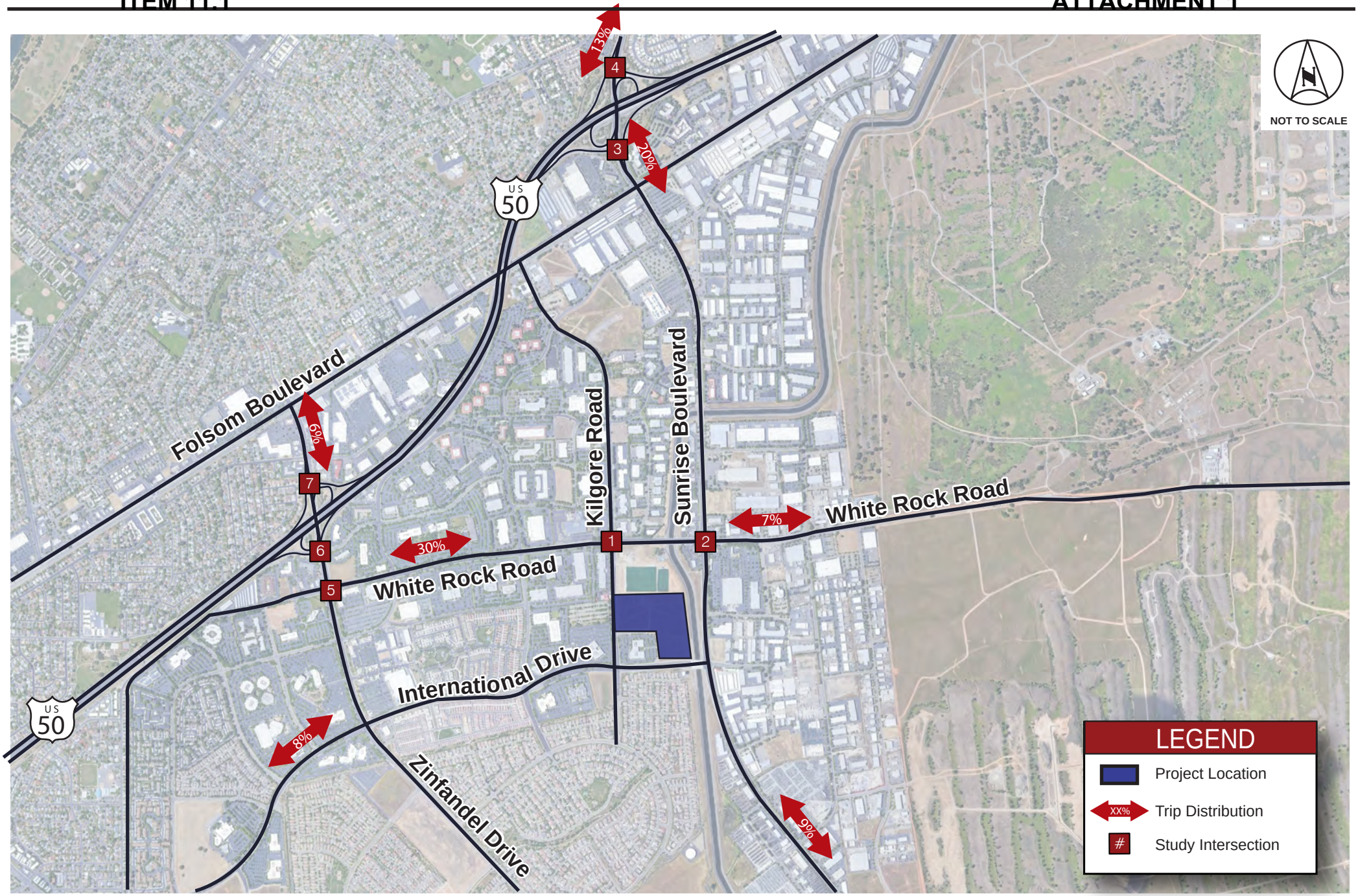

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Figure 3
Project Trip Distribution and Study Facilities

LEVEL OF SERVICE (LOS) ANALYSIS

Table 3 and Table 4 summarize the peak-hour LOS results for each respective analysis scenario. Analysis worksheets are included in Appendix C to Appendix F. As the project and associated study intersections fall within the City of Rancho Cordova boundary, LOS D was used as the threshold for evaluating acceptable operations. Figure 5, Figure 6, Figure 7, Figure 8, and Figure 9 display intersection turning movement volumes used for each analysis scenario.

Table 3 – Existing (2022) and Opening Year (2024) plus Project Intersection LOS Analysis

ID	Intersection	Control	Peak Hour	Existing (2022)		Opening Year (2024) Plus Project	
				Delay (sec)	LOS	Delay (sec)	LOS
1	Kilgore Rd @ White Rock Rd	Signal	AM	15.6	B	15.8	B
			PM	16.8	B	16.6	B
2	Sunrise Blvd @ White Rock Rd	Signal	AM	23.1	C	23.7	C
			PM	37.5	D	37.3	D
3	Sunrise Blvd @ US-50 EB Ramps	Signal	AM	18.7	B	18.9	B
			PM	19.9	B	21.0	C
4	Sunrise Blvd @ US-50 WB Ramps	Signal	AM	9.9	A	10.5	B
			PM	11.9	B	13.0	B
5	Zinfandel Dr @ White Rock Rd	Signal	AM	26.3	C	28.9	C
			PM	30.3	C	31.3	C
6	Zinfandel Dr @ US-50 EB Ramps	Signal	AM	17.0	B	18.3	B
			PM	16.4	B	18.1	B
7	Zinfandel Dr @ US-50 WB Ramps	Signal	AM	13.8	B	14.8	B
			PM	9.0	A	8.9	A

Notes: **Bold** represents unacceptable operations.

Table 4 – Cumulative (2040) and Cumulative (2040) plus Project Intersection LOS Analysis

ID	Intersection	Control	Peak Hour	Cumulative (2040)		Cumulative (2040) Plus Project	
				Delay (sec)	LOS	Delay (sec)	LOS
1	Kilgore Rd @ White Rock Rd	Signal	AM	17.8	B	18.7	B
			PM	23.1	C	25.5	C
2	Sunrise Blvd @ White Rock Rd	Signal	AM	29.5	C	30.3	C
			PM	42.0	D	42.8	D
3	Sunrise Blvd @ US-50 EB Ramps	Signal	AM	18.9	B	18.8	B
			PM	20.4	C	20.7	C
4	Sunrise Blvd @ US-50 WB Ramps	Signal	AM	10.8	B	10.7	B
			PM	12.6	B	12.0	B
5	Zinfandel Dr @ White Rock Rd	Signal	AM	32.9	C	30.6	C
			PM	43.5	D	51.7	D
6	Zinfandel Dr @ US-50 EB Ramps	Signal	AM	21.7	C	23.0	C
			PM	20.2	C	22.7	C
7	Zinfandel Dr @ US-50 WB Ramps	Signal	AM	13.3	B	13.5	B
			PM	10.4	B	10.5	B

Notes: **Bold** represents unacceptable operations.

The LOS analysis summarized in the tables above show that all study intersections operate within the acceptable standard of LOS D under all analysis scenarios. Intersections analyzed using HCM 6th Edition methodology were also assessed using HCM 2000 methodology for comparison. The HCM 2000

methodology yielded comparable results to the HCM 6th edition. The HCM 2000 reports are included in the relevant appendices for all scenarios.

Peak-Hour Traffic Signal Warrant Evaluation

A planning level assessment of the need for traffic signalization was performed for the unsignalized project driveway at Kilgore Road. This evaluation was performed consistent with the peak-hour warrant methodologies noted in Section 4C of the *California Manual on Uniform Traffic Control Devices (CAMUTCD)*, dated March 30, 2021. A summary of the peak-hour warrant results is presented in Table 5. As shown in Table 5, the peak-hour signal warrant is not satisfied under all analysis scenarios. Detailed results of this analysis are presented in Appendix B.

Table 5 – Traffic Signal Warrant Analysis Results

Intersection	Scenario	Peak Hour	Signal Warranted?
Kilgore Road and Project Driveway	Opening Year Plus Project	AM	No
		PM	No
	Cumulative Year	AM	No
		PM	No
	Cumulative Year Plus Project	AM	No
		PM	No

Queuing Analysis Results

Ramp Queuing

Vehicle queuing was evaluated at each US-50 interchange off-ramp for the analysis scenarios as summarized in Table 6 using the 95th percentile queue as calculated using the SimTraffic software package. Analysis worksheets are provided in Appendix C to Appendix F for the respective analysis scenarios.

Table 6 presents the queuing analysis results at the US-50 interchange with Sunrise Boulevard (Study Intersections #3 and #4) and the US-50 interchange with Zinfandel Dr (Study Intersections #6 and #7). As shown in Table 6, the off-ramps have capacity to contain projected queues under all study scenarios.

Study Intersection Queuing

Table 7 presents queuing analysis results at the remaining non-US-50 interchange ramp project study intersections (Study Intersections #1, #2, and #5). Table 7 specifically summarizes left-turn movements to which the project is anticipated to add trips. As shown in Table 7, queuing exceeds the available storage for the westbound left movement at the Kilgore Road intersection with White Rock Road (Intersection #1) during the PM peak-hour for Cumulative plus Project conditions. While the Cumulative plus Project PM peak-hour conditions results in a notable increase in queue length beyond the no project condition, this can be reduced by reallocating signal time to more efficiently accommodate the needs to the westbound left movement.

Table 6 – US-50 Off-ramps @ Study Intersections Queuing Analysis Results

Intersection / Analysis Scenario	Movement	AM Peak-Hour		PM Peak-Hour	
		Available Storage (ft)	95th % Queue (ft)	Available Storage (ft)	95th % Queue (ft)
#3, Sunrise Blvd @ US-50 EB Off Ramp	EBL				
Existing (2022)		1730	300	1730	350
Opening Year (2024) plus Proposed Project			325		375
Cumulative (2040)			300		375
Cumulative (2040) plus Proposed Project			300		375
	EBR				
Existing (2022)		1730	127	1730	125
Opening Year (2024) plus Proposed Project			136		125
Cumulative (2040)			190		175
Cumulative (2040) plus Proposed Project			203		175
#4, Sunrise Blvd @ US-50 WB Off Ramp	WBL				
Existing (2022)		1580	125	1580	150
Opening Year (2024) plus Proposed Project			125		150
Cumulative (2040)			125		150
Cumulative (2040) plus Proposed Project			125		125
	WBR				
Existing (2022)		1580	125	1580	175
Opening Year (2024) plus Proposed Project			125		175
Cumulative (2040)			125		175
Cumulative (2040) plus Proposed Project			125		175
#6, Zinfandel Dr @ US-50 EB Off Ramp / Gold Center Dr	EBL				
Existing (2022)		1030	175	1030	300
Opening Year (2024) plus Proposed Project			200		325
Cumulative (2040)			200		325
Cumulative (2040) plus Proposed Project			175		325
	EBT				
Existing (2022)		1030	375	1030	100
Opening Year (2024) plus Proposed Project			400		150
Cumulative (2040)			625		350
Cumulative (2040) plus Proposed Project			650		550
	EBR				
Existing (2022)		1030	350	1030	250
Opening Year (2024) plus Proposed Project			375		300
Cumulative (2040)			375		350
Cumulative (2040) plus Proposed Project			375		375
#7, Zinfandel Dr @ US-50 WB Off Ramp	WBL				
Existing (2022)		1085	250	1085	175
Opening Year (2024) plus Proposed Project			250		175
Cumulative (2040)			250		200
Cumulative (2040) plus Proposed Project			250		200
	WBR				
Existing (2022)		1085	250	1085	175
Opening Year (2024) plus Proposed Project			250		175
Cumulative (2040)			250		200
Cumulative (2040) plus Proposed Project			250		200

Source: *Highway Capacity Manual (HCM) 2016* methodology per Synchro© v11/Simtraffic.
Notes: For approaches with dual turn lanes, the longest queue length is reported.
*95th Percentile Queue, shaded cell indicates queue exceeds storage by > 25' (one vehicle length)

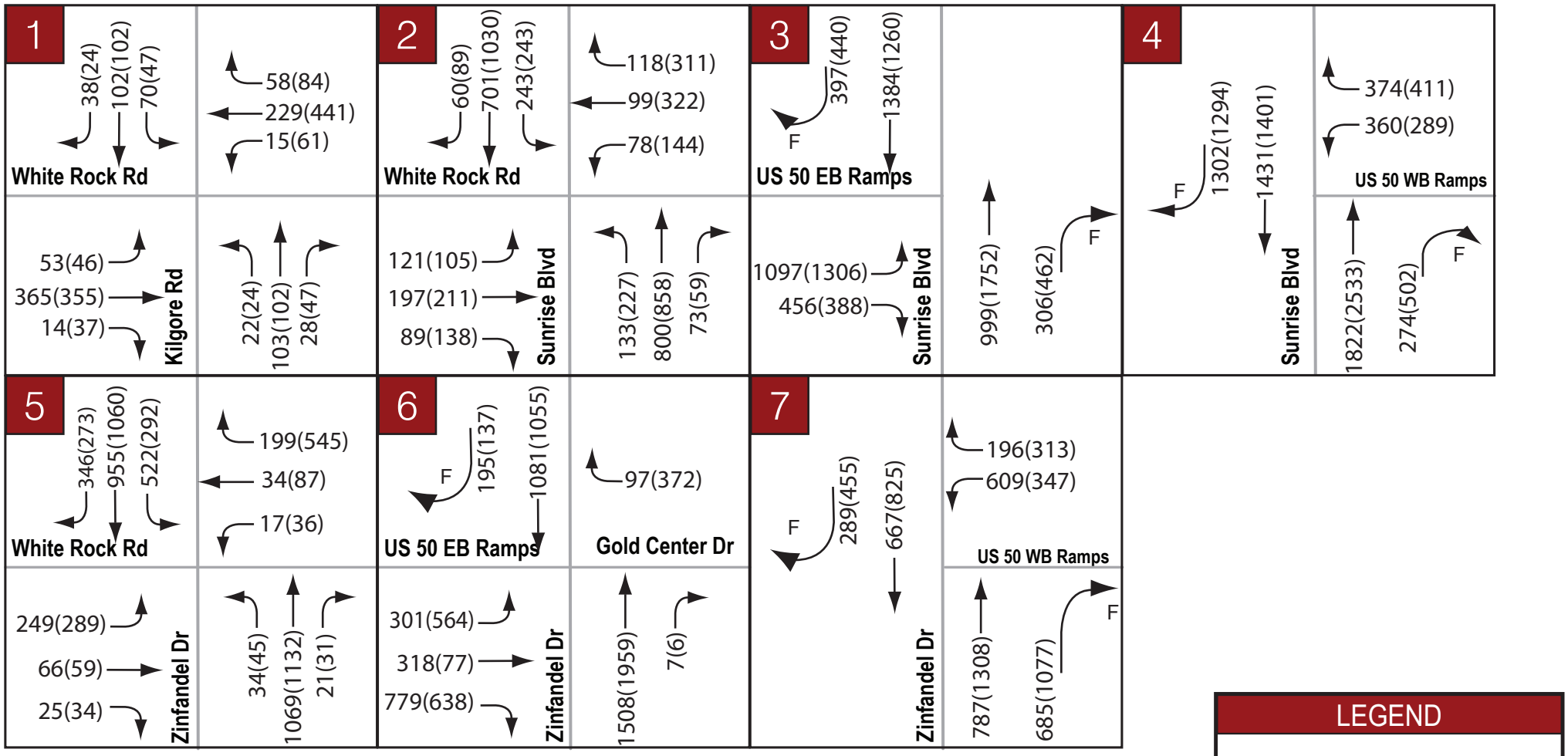
Table 7 – Study Intersection Queuing Analysis Results

Intersection / Analysis Scenario	Movement	AM Peak-Hour		PM Peak-Hour	
		Available Storage (ft)	95th % Queue (ft)	Available Storage (ft)	95th % Queue (ft)
#1, Kilgore Rd @ White Rock Rd	**NBL**				
Existing (2022)		190	25	190	50
Opening Year (2024) plus Proposed Project			75		75
Cumulative (2040)			75		100
Cumulative (2040) plus Proposed Project			125		150
	EBL				
Existing (2022)		310	50	310	50
Opening Year (2024) plus Proposed Project			75		75
Cumulative (2040)			100		100
Cumulative (2040) plus Proposed Project			100		125
	SBL				
Existing (2022)		140	75	140	50
Opening Year (2024) plus Proposed Project			75		50
Cumulative (2040)			75		75
Cumulative (2040) plus Proposed Project			100		75
	WBL				
Existing (2022)		210	25	210	75
Opening Year (2024) plus Proposed Project			50		100
Cumulative (2040)			100		225
Cumulative (2040) plus Proposed Project			125		275
#2, Sunrise Blvd @ White Rock Rd	**NBL**				
Existing (2022)		365	100	365	200
Opening Year (2024) plus Proposed Project			100		200
Cumulative (2040)			250		275
Cumulative (2040) plus Proposed Project			275		275
	EBL				
Existing (2022)		325	75	325	100
Opening Year (2024) plus Proposed Project			100		125
Cumulative (2040)			175		200
Cumulative (2040) plus Proposed Project			200		200
	SBL				
Existing (2022)		325	125	325	200
Opening Year (2024) plus Proposed Project			150		200
Cumulative (2040)			175		225
Cumulative (2040) plus Proposed Project			175		225
	WBL				
Existing (2022)		220	75	220	125
Opening Year (2024) plus Proposed Project			75		150
Cumulative (2040)			75		150
Cumulative (2040) plus Proposed Project			75		150

Source: *Highway Capacity Manual (HCM) 2016* methodology per Synchro© v11/Simtraffic.
Notes: For approaches with dual turn lanes, the longest queue length is reported.
*Minimal 95th Percentile Queue, shaded cell indicates queue exceeds storage by > 25' (one vehicle length)

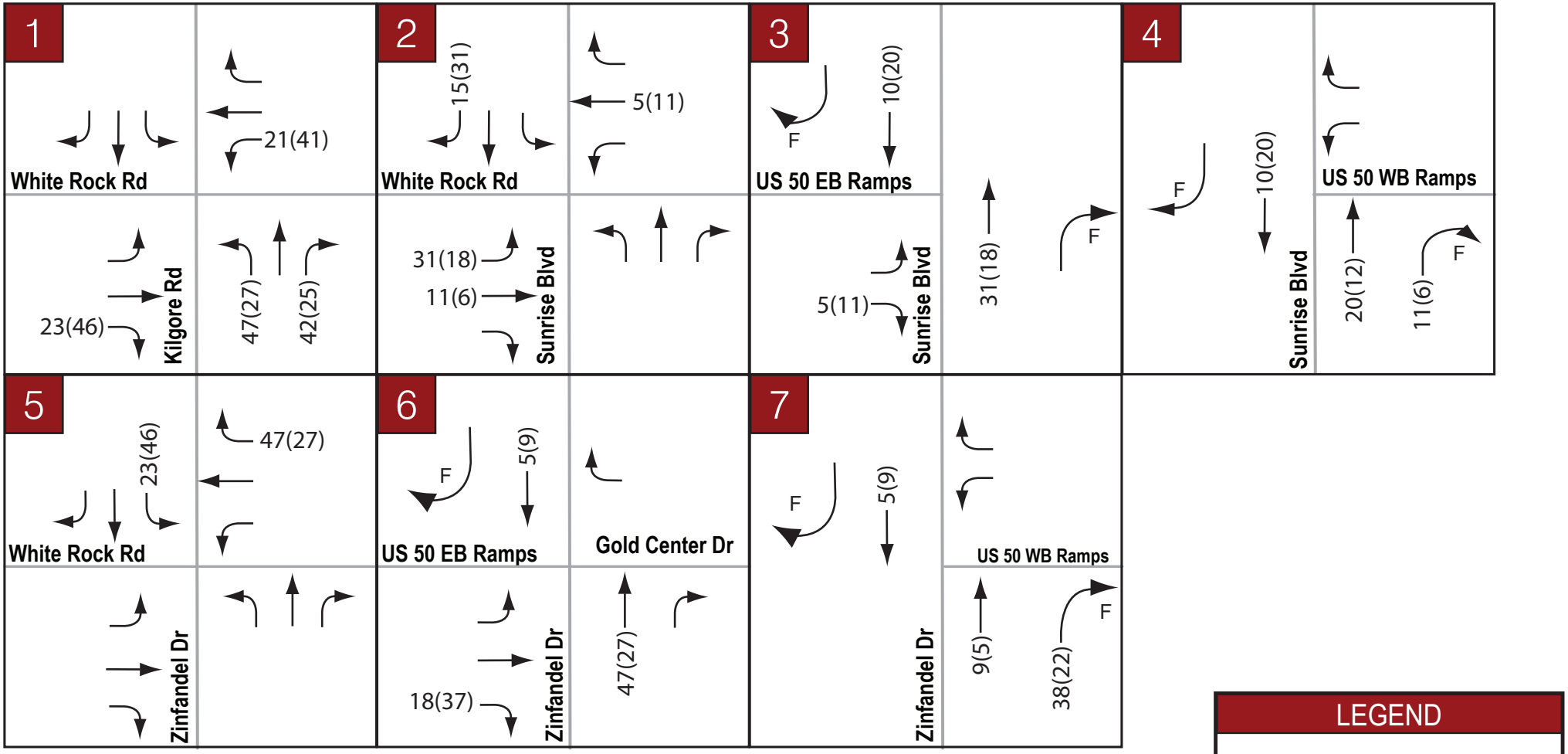
Intersection / Analysis Scenario	Movement	AM Peak-Hour		PM Peak-Hour	
		Available Storage (ft)	95th % Queue (ft)	Available Storage (ft)	95th % Queue (ft)
#5, Zinfandel Dr @ White Rock Road	NBL				
Existing (2022)		180	100	180	150
Opening Year (2024) plus Proposed Project			125		150
Cumulative (2040)			150		200
Cumulative (2040) plus Proposed Project			125		200
	EBL				
Existing (2022)		350	200	350	250
Opening Year (2024) plus Proposed Project			225		250
Cumulative (2040)			250		250
Cumulative (2040) plus Proposed Project			200		275
	SBL				
Existing (2022)		485	275	485	200
Opening Year (2024) plus Proposed Project			300		225
Cumulative (2040)			300		375
Cumulative (2040) plus Proposed Project			300		475
	WBL				
Existing (2022)		325	75	325	75
Opening Year (2024) plus Proposed Project			50		75
Cumulative (2040)			100		150
Cumulative (2040) plus Proposed Project			100		150

Source: *Highway Capacity Manual (HCM) 2016* methodology per Synchro© v11/Simtraffic.
Notes: For approaches with dual turn lanes, the longest queue length is reported.
*Minimal 95th Percentile Queue, shaded cell indicates queue exceeds storage by > 25' (one vehicle length)



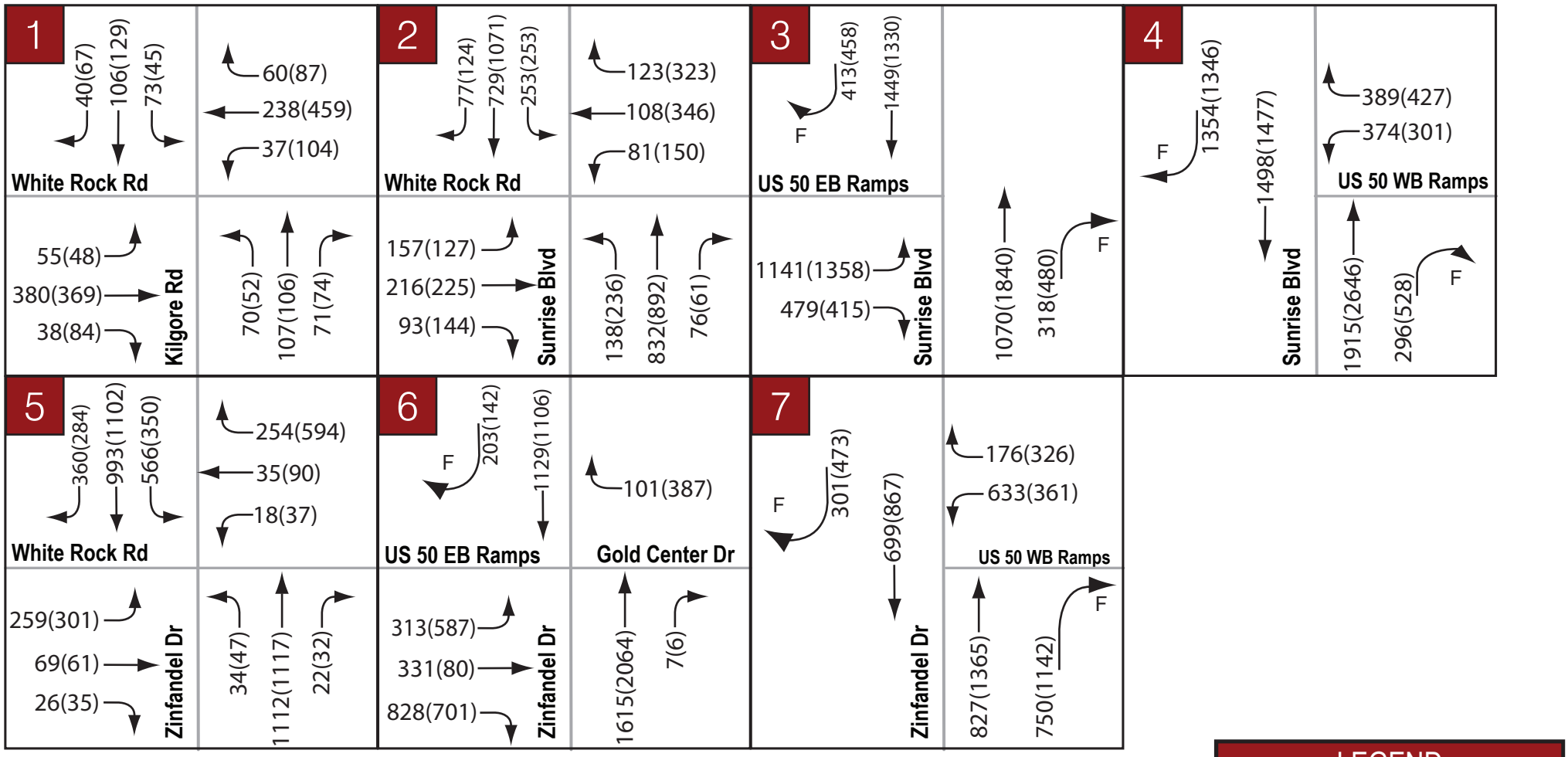
Kimley»Horn

Figure 5
Existing (2022) Peak-Hour Traffic Volumes



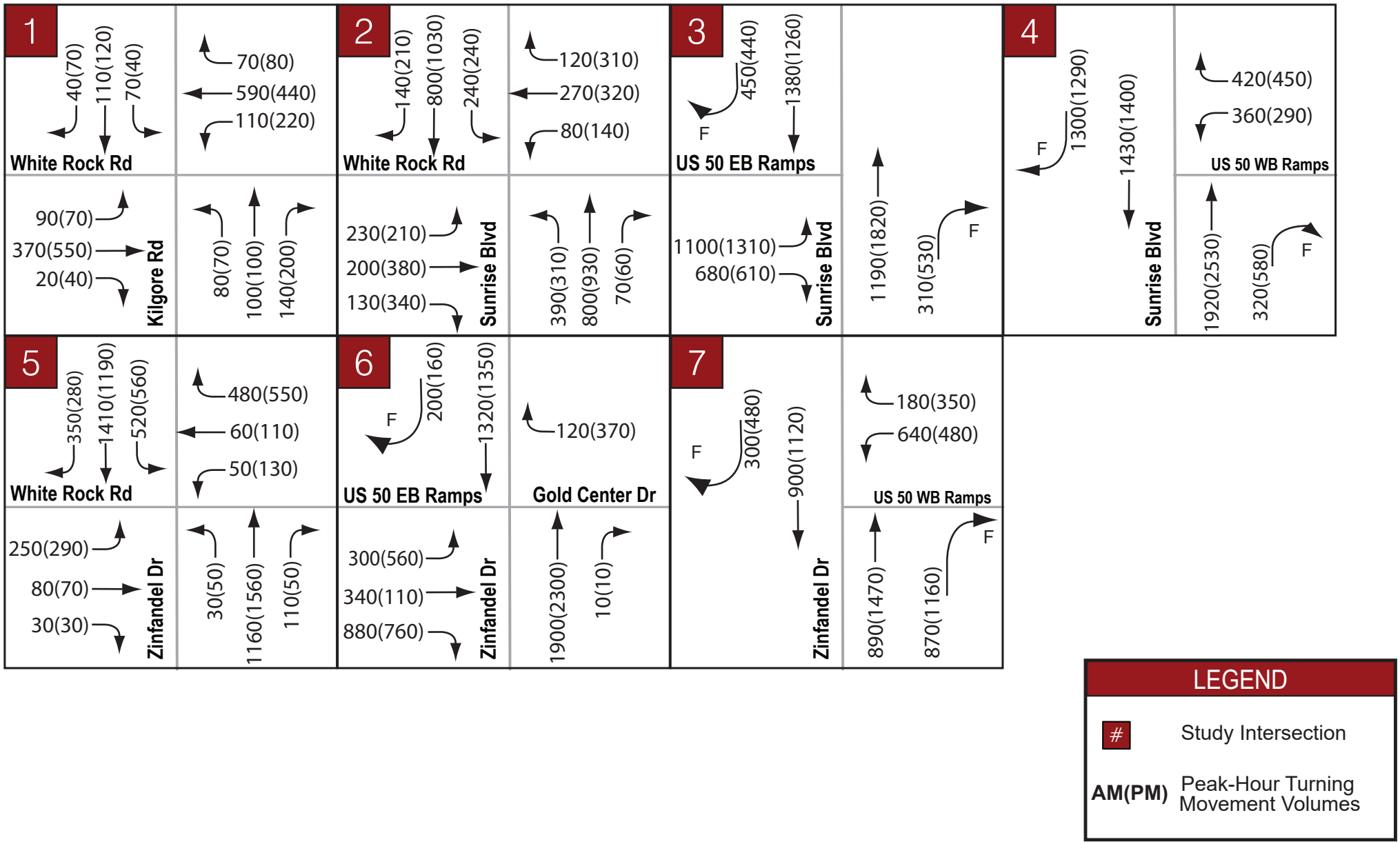
Kimley»Horn

Figure 6
Peak-Hour Project Trip Assignment



Kimley»Horn

Figure 7
Opening Year (2024) Plus Project Peak-Hour Traffic Volumes



Kimley»Horn

Figure 8
Cumulative (2040) Peak-Hour Traffic Volumes

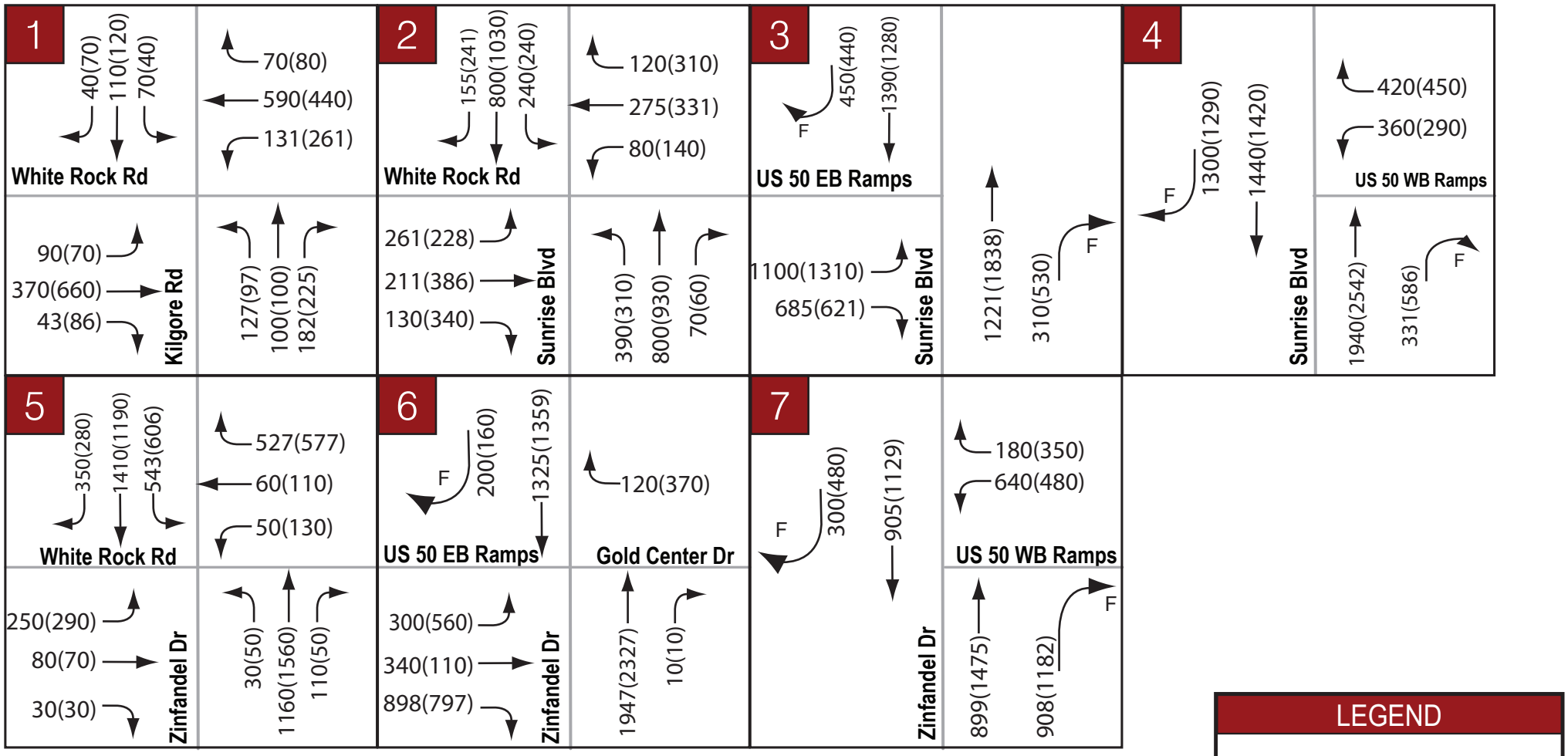


Figure 9
Cumulative (2040) Plus Project Peak-Hour Traffic Volumes

BICYCLE, PEDESTRIAN, AND TRANSIT EVALUATION

The applicability of a mid-block pedestrian crossing along Kilgore Road was evaluated using guidance found in the Federal Highway Administration (FHWA) "Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations"[6] report. Table 8 below presents recommended pedestrian crash countermeasures by roadway feature.

Table 8 – FHWA Pedestrian Crash Countermeasures

Roadway Configuration	Posted Speed Limit and AADT								
	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph
2 lanes (1 lane in each direction)	● 2 4 5 6	● 5 6 7 9	○ 5 6 ● 9	● 4 5 6	● 5 6 7 9	○ 5 6 ● 9	● 4 5 6 7 9	○ 5 6 7 9	○ 5 6 ● 9
3 lanes with raised median (1 lane in each direction)	● 2 3 4 5	● 3 5 7 9	○ 3 5 ● 9	○ 3 4 5 7 9	○ 3 5 ● 9	○ 3 5 ● 9	○ 3 4 5 7 9	○ 3 5 ● 9	○ 3 5 ● 9
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	● 2 3 4 5 6 7 9	● 3 5 6 7 9	○ 3 5 6 ● 9	○ 3 4 5 6 7 9	○ 3 5 6 ● 9	○ 3 5 6 ● 9	○ 3 4 5 6 7 9	○ 3 5 6 ● 9	○ 3 5 6 ● 9
4+ lanes with raised median (2 or more lanes in each direction)	● 3 5 7 8 9	● 3 5 7 8 9	○ 3 5 8 ● 9	○ 3 5 7 8 9	○ 3 5 ● 8 9	○ 3 5 8 ● 9	○ 3 5 ● 7 8 9	○ 3 5 8 ● 9	○ 3 5 8 ● 9
4+ lanes w/o raised median (2 or more lanes in each direction)	● 3 5 6 7 8 9	○ 3 5 ● 6 7 8 9	○ 3 5 6 8 ● 9	○ 3 5 ● 6 7 8 9	○ 3 5 6 ● 8 9	○ 3 5 6 ● 8 9	○ 3 5 ● 6 7 8 9	○ 3 5 6 8 ● 9	○ 3 5 6 8 ● 9

Given the set of conditions in a cell,

- # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.
- ● Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.
- ○ Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.*

The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.

1 High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs
2 Raised crosswalk
3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
4 In-Street Pedestrian Crossing sign
5 Curb extension
6 Pedestrian refuge island
7 Rectangular Rapid-Flashing Beacon (RRFB)**
8 Road Diet
9 Pedestrian Hybrid Beacon (PHB)**

Assuming that the PM peak-hour volume is 10% of the daily volume, the ADT on Kilgore Road is approximately 4,000 vehicles per day. Therefore, Kilgore Road has an ADT which falls in the range of less than 9,000 shown in Table 8, a posted speed limit of 40 MPH, and has two lanes in each direction with no median (4-lane undivided roadway). According to FHWA guidance, the following countermeasures should be considered, but are not required: Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) lines, a Pedestrian refuge island, and a Pedestrian Hybrid Beacon (PHB). Crosswalk visibility enhancements should be applied in conjunction with these appropriate countermeasures.

Kilgore Road has Class II bike lanes and pedestrian facilities (sidewalks) in both directions. Kilgore Road is also is part of the regional bike trail system, as described in the 2016 Rancho Cordova Bicycle Master Plan[7].

[6] *Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations, July 2018,* USDOT FHWA
[7] *Bicycle Master Plan, April 2016,* City of Rancho Cordova

The addition of the previously mentioned mid-block crossing elements to Kilgore Road would provide a more complete bike and pedestrian network and would facilitate travel to and from the project site. White Rock Road does not currently have bike lanes between Zinfandel Drive and Sunrise Boulevard, though it does have pedestrian facilities and crosswalks at the major intersections. The segment of White Rock Road immediately north of the project site has been identified in the City's Bicycle Master Plan as a location to implement Class II Bike lanes in the future. Pedestrian facilities and Class II bike lanes are present in both directions south of the project site along International Drive.

Residents at the project site will have access to Sacramento Regional Transit (SacRT) Rancho CordoVan service along Kilgore Road. This route is intended to connect riders with Zinfandel Station on the SacRT light rail Gold line, which provides service to both Sacramento and Folsom in either direction. Additional SacRT bus services within the area serve similar purposes in connecting riders with the light rail Gold line.

SITE PLAN, ACCESS, AND CIRCULATION EVALUATION

Based on the project's site plan depicted in Figure 2, the proposed project is to be served by several drive aisles providing access to buildings and parking. Access to the project's two different residential component types is provided via two separate gated entrances from side streets off of Kilgore Road. As both entrances are set back from Kilgore Road, minimal turn movement/access conflicts are anticipated for the analysis scenarios. Access to the project's commercial component is provided via a dedicated driveway on the northern edge of the site connecting directly to Kilgore Road. Three emergency vehicle access points are provided for the residential components. The project's residential site layout is anticipated to mainly serve personal vehicles and operate effectively.

DEFICIENCIES AND IMPROVEMENTS

Intersection LOS

As reflected in Table 3 and Table 4 all study intersections operate within the acceptable standard of LOS D under all analysis scenarios.

Ramp Queuing

As reflected in Table 6, the study intersection off-ramps have capacity to contain projected queues under all study scenarios.

Intersection Queuing

As reflected in Table 7, queuing exceeds the available storage for the westbound left movement at the Kilgore Road intersection with White Rock Road (Intersection #1) in AM peak-hour for Cumulative plus Project conditions and the PM peak-hour for both Cumulative and Cumulative plus Project conditions. While the Cumulative plus Project PM peak-hour conditions results in a notable increase in queue length beyond the no project condition, this can be reduced by reallocating signal time to more efficiently accommodate the needs to the westbound left movement.

OTHER CONSIDERATIONS

As a tenant has not yet been identified for the Restaurant component of the proposed project, an additional trip generation scenario was developed using ITE Land Use 930 (Fast Casual Restaurant) to more conservatively account for PM Peak-Hour trips. The alternative trip generation is presented in Table 9.

Table 9 – Alternative Project Trip Generation

ITE Land Use Code	Land Use	# Units/ ksf	Daily Trips	AM Peak-Hour			PM Peak-Hour		
				Total	In	Out	Total	In	Out
220	Multifamily Housing (Low-Rise)	177	1,210	78	19	59	97	61	36
221	Multifamily Housing (Mid-Rise)	240	1,098	94	22	72	94	57	37
930	Fast Casual Restaurant	9	911	81	45	36	107	59	48
Total Project Trips			**3,220**	**253**	**86**	**167**	**298**	**177**	**121**
Internal Capture (8% Daily/AM Peak-hour, 9% PM Peak-hour)			262	20	10	10	29	13	16
Net External Project Trips			***2,958***	***233***	***76***	***157***	***269***	***164***	***105***

When compared to the original trip generation developed in Table 2 and accounting for a similar proportion of internal capture between project land uses, the alternative trip generation results in a net increase of 25 trips during the PM Peak-Hour compared to the original trip generation. The alternative project trips were then distributed and assigned using the same percentages as the original trip generation. The ensuing analysis showed that the alternative PM project trip generation resulted comparable projected 95th percentile queues at the Kilgore Road intersection with White Rock Road (Intersection #1) with all study intersections operating within the acceptable LOS threshold, as found for the original project trip generation. The recommended improvement for the original trip generation at Intersection #1 (redistributing signal timing to better accommodate westbound left-turns) is suitable as an improvement for the alternative trip generation as well. All signals

CONCLUSIONS

Significant findings of this study include:

- The proposed project is anticipated to generate 3,220 new daily trips, with 253 and 268 trips occurring during the AM and PM peak-hours respectively.
  - Internal trip reduction to assess how the Project's residential and proximate commercial component trips might interact was generated using the NCHRP 684 Trip Capture Estimation Tool[8]. This resulted in a reduction of 262 daily trips, 20 AM peak-hour trips, and 24 PM peak-hour trips.
  - The final net external Project trip generation is 2,958 daily trips, 233 AM peak-hour trips, and 244 PM peak-hour trips.
- The addition of the proposed project to the Opening Year and Cumulative scenarios does not result in deficiencies at any of the study intersections. All study intersections operate within the acceptable Level of Service (LOS) threshold established by the City of Rancho Cordova's General Plan.
- The addition of the proposed project to Opening Year and Cumulative scenarios does not result in significant queueing deficiencies at any of the US-50 off-ramps. Current ramp lengths are sufficient to accommodate vehicles without creating vehicle spillback into the traveled way of US-50 at all study intersection locations.

[8] *Trip Generation Handbook (3rd Edition)*, Institute of Transportation Engineers (ITE), August 2014

Appendix A

Traffic Count Data Sheets

National Data & Surveying Services Intersection Turning Movement Count

Location: Kilgore Rd & White Rock Rd
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-001
Date: 1/11/2022

Data - Totals

NS/EW Streets:	Kilgore Rd				Kilgore Rd				White Rock Rd				White Rock Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	2	0	0	1	2	1	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	2	4	4	0	1	2	4	0	4	69	1	0	4	34	5	0	134
6:15 AM	0	3	5	0	8	6	3	0	2	87	0	0	6	40	1	0	161
6:30 AM	4	2	2	0	7	13	3	0	4	90	4	0	12	55	4	0	200
6:45 AM	3	15	7	0	13	13	4	0	9	122	11	0	5	68	9	0	279
7:00 AM	7	23	7	0	13	9	3	0	10	71	3	0	9	49	8	0	212
7:15 AM	6	13	10	0	9	21	6	0	9	74	3	0	2	45	12	0	210
7:30 AM	8	22	11	0	11	14	10	0	5	80	5	0	3	66	17	0	252
7:45 AM	7	35	5	0	19	23	8	0	20	97	3	0	5	61	21	0	304
8:00 AM	6	27	3	0	29	32	9	0	18	85	5	0	3	41	10	0	268
8:15 AM	1	19	9	0	11	33	11	0	10	103	1	0	4	61	10	0	273
8:30 AM	2	10	9	0	14	23	7	0	8	75	4	2	5	53	4	0	216
8:45 AM	3	17	10	0	5	13	6	0	9	78	3	2	7	67	8	0	228
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	49	190	82	0	140	202	74	0	108	1031	43	4	65	640	109	0	2737
APPROACH %'s :	15.26%	59.19%	25.55%	0.00%	33.65%	48.56%	17.79%	0.00%	9.11%	86.93%	3.63%	0.34%	7.99%	78.62%	13.39%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	22	103	28	0	70	102	38	0	53	365	14	0	15	229	58	0	1097
PEAK HR FACTOR :	0.688	0.736	0.636	0.000	0.603	0.773	0.864	0.000	0.663	0.886	0.700	0.000	0.750	0.867	0.690	0.000	0.902
	0.814				0.750				0.900				0.868				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	2	0	0	1	2	1	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	3	21	10	0	9	27	8	0	13	96	2	1	7	110	24	0	331
3:15 PM	4	23	6	0	13	31	6	0	8	82	2	0	3	99	22	0	299
3:30 PM	7	13	4	0	19	30	17	0	9	80	6	0	5	171	19	0	380
3:45 PM	10	25	7	0	13	17	8	0	8	99	6	0	5	111	21	0	330
4:00 PM	4	20	4	0	21	20	18	0	8	78	3	1	12	121	11	0	321
4:15 PM	2	24	8	0	17	26	12	0	5	89	2	0	4	97	14	0	300
4:30 PM	2	23	9	0	13	36	31	0	9	89	6	1	8	121	23	0	371
4:45 PM	7	23	7	0	7	29	9	0	6	79	13	1	21	97	14	0	313
5:00 PM	7	27	18	0	17	35	15	0	17	118	11	1	16	111	24	0	417
5:15 PM	8	29	13	0	6	24	9	0	11	69	7	0	16	112	23	0	327
5:30 PM	5	17	8	0	8	8	7	0	4	64	9	0	13	99	15	0	257
5:45 PM	3	11	5	0	7	20	13	0	5	54	10	2	14	96	9	0	249
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	62	256	99	0	150	303	153	0	103	997	77	7	124	1345	219	0	3895
APPROACH %'s :	14.87%	61.39%	23.74%	0.00%	24.75%	50.00%	25.25%	0.00%	8.70%	84.21%	6.50%	0.59%	7.35%	79.68%	12.97%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	24	102	47	0	43	124	64	0	43	355	37	3	61	441	84	0	1428
PEAK HR FACTOR :	0.750	0.879	0.653	0.000	0.632	0.861	0.516	0.000	0.632	0.752	0.712	0.750	0.726	0.911	0.875	0.000	0.856
	0.832				0.722				0.745				0.964				

National Data & Surveying Services Intersection Turning Movement Count

Location: Sunrise Blvd & White Rock Rd
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-002
Date: 1/11/2022

Data - Totals

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				White Rock Rd				White Rock Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	1	0	2	3	1	0	2	2	1	0	2	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	14	83	15	4	36	88	10	3	14	61	3	1	4	20	17	0	373
6:15 AM	12	89	12	5	53	110	8	2	14	79	5	2	20	31	37	0	479
6:30 AM	14	154	12	4	66	152	17	1	14	69	17	4	10	29	30	0	593
6:45 AM	13	138	25	5	66	153	15	0	25	96	18	7	12	59	34	0	666
7:00 AM	23	175	14	6	50	119	9	5	14	47	15	10	6	21	33	1	548
7:15 AM	13	171	13	7	38	122	8	6	26	46	12	7	15	35	33	0	552
7:30 AM	40	188	16	8	29	135	11	8	30	38	16	8	10	36	30	0	603
7:45 AM	46	204	15	9	41	143	16	4	25	67	23	6	14	23	22	1	659
8:00 AM	18	208	19	3	31	132	13	4	27	55	24	5	21	20	20	1	601
8:15 AM	39	189	22	6	52	153	8	8	27	69	16	8	21	23	25	1	667
8:30 AM	27	185	15	9	82	227	23	7	18	28	26	8	17	24	38	1	735
8:45 AM	26	218	17	5	54	189	16	5	21	45	23	7	16	32	35	0	709
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	285	2002	195	71	598	1723	154	53	255	700	198	73	166	353	354	5	7185
APPROACH %'s :	11.16%	78.42%	7.64%	2.78%	23.66%	68.16%	6.09%	2.10%	20.80%	57.10%	16.15%	5.95%	18.91%	40.21%	40.32%	0.57%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	110	800	73	23	219	701	60	24	93	197	89	28	75	99	118	3	2712
PEAK HR FACTOR :	0.705	0.917	0.830	0.639	0.668	0.772	0.652	0.750	0.861	0.714	0.856	0.875	0.893	0.773	0.776	0.750	0.922
	0.945				0.740				0.848				0.889				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	1	0	2	3	1	0	2	2	1	0	2	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	38	223	7	21	67	234	16	2	18	52	33	2	41	77	71	0	902
3:15 PM	24	167	13	17	55	207	17	4	28	68	20	7	46	76	64	2	815
3:30 PM	49	236	18	22	60	236	21	7	21	45	34	7	29	114	104	0	1003
3:45 PM	28	214	16	15	47	259	29	7	19	63	32	3	36	82	65	0	915
4:00 PM	46	209	15	20	59	283	21	5	20	51	39	1	39	73	82	0	963
4:15 PM	29	199	10	18	49	252	18	9	29	52	33	5	40	53	60	0	856
4:30 PM	52	208	14	15	45	239	28	7	30	52	31	2	49	86	72	0	930
4:45 PM	33	224	10	12	53	224	28	5	24	37	16	7	37	61	62	0	833
5:00 PM	54	239	17	15	55	254	36	9	40	77	39	8	50	69	73	0	1035
5:15 PM	47	247	8	13	35	265	31	9	30	34	16	3	26	58	55	0	877
5:30 PM	32	202	10	12	35	212	23	4	16	47	15	7	42	52	48	0	757
5:45 PM	35	191	10	11	60	180	24	9	17	37	17	3	33	67	47	0	741
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	467	2559	148	191	620	2845	292	77	292	615	325	55	468	868	803	2	10627
APPROACH %'s :	13.88%	76.05%	4.40%	5.68%	16.17%	74.20%	7.62%	2.01%	22.69%	47.79%	25.25%	4.27%	21.86%	40.54%	37.51%	0.09%	
PEAK HR :	03:30 PM - 04:30 PM																TOTAL
PEAK HR VOL :	152	858	59	75	215	1030	89	28	89	211	138	16	144	322	311	0	3737
PEAK HR FACTOR :	0.776	0.909	0.819	0.852	0.896	0.910	0.767	0.778	0.767	0.837	0.885	0.571	0.900	0.706	0.748	0.000	0.931
	0.880				0.925				0.954				0.786				

National Data & Surveying Services Intersection Turning Movement Count

Location: Sunrise Blvd & US-50 EB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-003
Date: 1/11/2022

Data - Totals

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				US-50 EB Ramps				US-50 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	4	2	0	0	3	2	0	3	0	2	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	76	28	0	0	231	30	0	100	0	72	0	0	0	0	0	537
6:15 AM	0	115	44	0	0	260	55	0	135	0	107	0	0	0	0	0	716
6:30 AM	0	162	60	0	0	320	79	0	166	0	113	0	0	0	0	0	900
6:45 AM	0	160	63	0	0	431	69	0	143	0	182	0	0	0	0	0	1048
7:00 AM	0	188	70	0	0	304	81	0	176	0	116	0	0	0	0	0	935
7:15 AM	0	204	55	0	0	316	84	0	228	0	104	0	0	0	0	0	991
7:30 AM	0	233	78	0	0	248	100	0	232	0	130	0	0	0	0	0	1021
7:45 AM	0	286	77	0	0	253	76	0	294	0	122	0	0	0	0	0	1108
8:00 AM	0	233	84	0	0	270	78	0	296	0	133	0	0	0	0	0	1094
8:15 AM	0	216	66	0	0	314	109	0	301	0	99	0	0	0	0	0	1105
8:30 AM	0	316	77	0	0	435	127	0	239	0	126	0	0	0	0	0	1320
8:45 AM	0	234	79	0	0	365	83	0	261	0	98	0	0	0	0	0	1120
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2423	781	0	0	3747	971	0	2571	0	1402	0	0	0	0	0	11895
APPROACH %'s :	0.00%	75.62%	24.38%	0.00%	0.00%	79.42%	20.58%	0.00%	64.71%	0.00%	35.29%	0.00%					
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	999	306	0	0	1384	397	0	1097	0	456	0	0	0	0	0	4639
PEAK HR FACTOR :	0.000	0.790	0.911	0.000	0.000	0.795	0.781	0.000	0.911	0.000	0.857	0.000	0.000	0.000	0.000	0.000	0.879
		0.830				0.792				0.905							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	4	2	0	0	3	2	0	3	0	2	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	414	122	0	0	287	112	0	370	0	81	0	0	0	0	0	1386
3:15 PM	0	371	98	0	0	308	130	0	325	0	97	0	0	0	0	0	1329
3:30 PM	0	477	109	0	0	301	102	0	351	0	102	0	0	0	0	0	1442
3:45 PM	0	425	117	0	0	330	97	0	307	0	103	0	0	0	0	0	1379
4:00 PM	0	479	138	0	0	321	111	0	323	0	86	0	0	0	0	0	1458
4:15 PM	0	369	101	0	0	305	78	0	290	0	75	0	0	0	0	0	1218
4:30 PM	0	459	108	0	0	295	97	0	320	0	81	0	0	0	0	0	1360
4:45 PM	0	350	92	0	0	265	77	0	347	0	83	0	0	0	0	0	1214
5:00 PM	0	479	109	0	0	316	88	0	323	0	56	0	0	0	0	0	1371
5:15 PM	0	436	101	0	0	275	95	0	325	0	79	0	0	0	0	0	1311
5:30 PM	0	332	106	0	0	260	113	0	261	0	68	0	0	0	0	0	1140
5:45 PM	0	318	87	0	0	273	77	0	251	0	67	0	0	0	0	0	1073
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4909	1288	0	0	3536	1177	0	3793	0	978	0	0	0	0	0	15681
APPROACH %'s :	0.00%	79.22%	20.78%	0.00%	0.00%	75.03%	24.97%	0.00%	79.50%	0.00%	20.50%	0.00%					
PEAK HR :	03:15 PM - 04:15 PM																TOTAL
PEAK HR VOL :	0	1752	462	0	0	1260	440	0	1306	0	388	0	0	0	0	0	5608
PEAK HR FACTOR :	0.000	0.914	0.837	0.000	0.000	0.955	0.846	0.000	0.930	0.000	0.942	0.000	0.000	0.000	0.000	0.000	0.962
		0.897				0.970				0.935							

National Data & Surveying Services Intersection Turning Movement Count

Location: Sunrise Blvd & US-50 WB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-004
Date: 1/11/2022

Data - Totals

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				US-50 WB Ramps				US-50 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	2	0	0	3	2	0	0	0	0	0	2	0	2	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	150	15	0	0	209	226	0	0	0	0	0	62	0	27	0	689
6:15 AM	0	232	28	0	0	259	259	0	0	0	0	0	50	0	39	0	867
6:30 AM	0	267	45	0	0	316	291	0	0	0	0	0	79	0	47	0	1045
6:45 AM	0	265	53	0	0	427	352	0	0	0	0	0	86	0	51	0	1234
7:00 AM	0	310	47	0	0	310	323	0	0	0	0	0	68	0	55	0	1113
7:15 AM	0	362	62	0	0	337	363	0	0	0	0	0	81	0	86	0	1291
7:30 AM	0	406	64	0	0	271	413	0	0	0	0	0	72	0	86	0	1312
7:45 AM	0	534	53	0	0	261	322	0	0	0	0	0	54	0	110	0	1334
8:00 AM	0	463	61	0	0	304	356	0	0	0	0	0	54	0	132	0	1370
8:15 AM	0	450	74	0	0	339	309	0	0	0	0	0	96	0	84	0	1352
8:30 AM	0	474	73	0	0	444	337	0	0	0	0	0	100	0	72	0	1500
8:45 AM	0	435	66	0	0	344	300	0	0	0	0	0	110	0	86	0	1341
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4348	641	0	0	3821	3851	0	0	0	0	0	912	0	875	0	14448
APPROACH %'s :	0.00%	87.15%	12.85%	0.00%	0.00%	49.80%	50.20%	0.00%					51.04%	0.00%	48.96%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	1822	274	0	0	1431	1302	0	0	0	0	0	360	0	374	0	5563
PEAK HR FACTOR :	0.000	0.961	0.926	0.000	0.000	0.806	0.914	0.000	0.000	0.000	0.000	0.000	0.818	0.000	0.708	0.000	0.927
		0.958				0.875								0.936			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	2	0	0	3	2	0	0	0	0	0	2	0	2	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	661	132	0	0	335	325	0	0	0	0	0	60	0	101	0	1614
3:15 PM	0	581	102	0	0	348	335	0	0	0	0	0	93	0	106	0	1565
3:30 PM	0	677	160	0	0	348	350	0	0	0	0	0	53	0	110	0	1698
3:45 PM	0	614	108	0	0	370	284	0	0	0	0	0	83	0	94	0	1553
4:00 PM	0	666	122	0	0	338	297	0	0	0	0	0	81	0	108	0	1612
4:15 PM	0	597	87	0	0	302	286	0	0	0	0	0	67	0	86	0	1425
4:30 PM	0	622	124	0	0	303	309	0	0	0	0	0	92	0	101	0	1551
4:45 PM	0	625	100	0	0	285	281	0	0	0	0	0	65	0	93	0	1449
5:00 PM	0	649	133	0	0	328	368	0	0	0	0	0	66	0	95	0	1639
5:15 PM	0	672	105	0	0	319	335	0	0	0	0	0	64	0	109	0	1604
5:30 PM	0	536	67	0	0	307	291	0	0	0	0	0	53	0	73	0	1327
5:45 PM	0	477	80	0	0	286	279	0	0	0	0	0	70	0	95	0	1287
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	7377	1320	0	0	3869	3740	0	0	0	0	0	847	0	1171	0	18324
APPROACH %'s :	0.00%	84.82%	15.18%	0.00%	0.00%	50.85%	49.15%	0.00%					41.97%	0.00%	58.03%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	2533	502	0	0	1401	1294	0	0	0	0	0	289	0	411	0	6430
PEAK HR FACTOR :	0.000	0.935	0.784	0.000	0.000	0.947	0.924	0.000	0.000	0.000	0.000	0.000	0.777	0.000	0.934	0.000	0.947
		0.907				0.965								0.879			

National Data & Surveying Services Intersection Turning Movement Count

Location: Zinfandel Dr & White Rock Rd
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-005
Date: 1/11/2022

Data - Totals

NS/EW Streets:	Zinfandel Dr				Zinfandel Dr				White Rock Rd				White Rock Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	0	0	2	3	1	0	2	3	0	0	2	1	2	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	5	75	1	0	82	80	11	0	25	6	4	3	1	6	29	0	328
6:15 AM	3	113	1	0	70	104	23	0	28	9	9	4	1	2	35	0	402
6:30 AM	7	134	1	0	102	130	35	1	38	13	3	0	1	3	46	0	514
6:45 AM	4	161	5	0	124	140	55	0	21	16	6	2	4	4	63	0	605
7:00 AM	5	141	2	0	68	118	43	0	35	6	6	2	2	7	52	0	487
7:15 AM	4	235	4	0	98	167	88	0	28	10	8	0	1	10	45	0	698
7:30 AM	10	281	6	0	129	198	79	0	56	13	7	2	7	8	63	0	859
7:45 AM	10	272	6	0	164	247	87	1	73	23	6	2	3	13	47	0	954
8:00 AM	6	286	2	0	115	264	93	1	66	10	3	1	4	8	44	1	904
8:15 AM	8	230	7	0	111	246	87	1	48	20	9	1	2	5	45	0	820
8:30 AM	9	184	0	0	97	207	69	0	44	10	8	1	8	4	34	0	675
8:45 AM	9	166	3	0	97	211	55	0	36	16	6	4	6	13	52	1	675
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	80	2278	38	0	1257	2112	725	4	498	152	75	22	40	83	555	2	7921
APPROACH %'s :	3.34%	95.08%	1.59%	0.00%	30.67%	51.54%	17.69%	0.10%	66.67%	20.35%	10.04%	2.95%	5.88%	12.21%	81.62%	0.29%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	34	1069	21	0	519	955	346	3	243	66	25	6	16	34	199	1	3537
PEAK HR FACTOR :	0.850	0.934	0.750	0.000	0.791	0.904	0.930	0.750	0.832	0.717	0.694	0.750	0.571	0.654	0.790	0.250	0.927
	0.946				0.913				0.817				0.801				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	0	0	2	3	1	0	2	3	0	0	2	1	2	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	9	310	9	1	61	253	62	1	53	8	9	5	2	14	110	0	907
3:15 PM	10	299	6	1	77	260	55	0	59	13	8	2	9	13	99	1	912
3:30 PM	15	271	9	1	62	255	59	0	77	17	7	2	7	17	186	0	985
3:45 PM	9	265	2	0	77	277	70	0	66	15	11	1	8	18	107	0	926
4:00 PM	10	238	6	2	78	251	62	1	87	22	12	2	3	17	141	0	932
4:15 PM	10	264	9	1	73	263	58	0	74	10	8	0	5	18	101	0	894
4:30 PM	14	326	8	0	80	259	56	0	72	9	7	3	12	14	119	1	980
4:45 PM	11	249	11	0	75	281	80	2	62	16	7	1	7	23	112	0	937
5:00 PM	11	283	5	2	92	246	71	0	92	18	10	2	6	28	204	0	1070
5:15 PM	6	274	7	1	43	274	66	0	55	16	10	2	9	22	110	1	896
5:30 PM	8	224	5	0	68	263	56	2	63	22	7	4	6	16	106	0	850
5:45 PM	10	206	9	0	69	257	57	1	50	9	3	6	5	14	93	1	790
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	123	3209	86	9	855	3139	752	7	810	175	99	30	79	214	1488	4	11079
APPROACH %'s :	3.59%	93.64%	2.51%	0.26%	17.99%	66.04%	15.82%	0.15%	72.71%	15.71%	8.89%	2.69%	4.43%	11.99%	83.36%	0.22%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	42	1132	31	3	290	1060	273	2	281	59	34	8	34	87	545	2	3883
PEAK HR FACTOR :	0.750	0.868	0.705	0.375	0.788	0.943	0.853	0.250	0.764	0.819	0.850	0.667	0.708	0.777	0.668	0.500	0.907
	0.868				0.928				0.783				0.702				

National Data & Surveying Services Intersection Turning Movement Count

Location: Zinfandel Dr & US-50 EB Ramps/Gold Center Dr
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-006
Date: 1/11/2022

Data - Totals

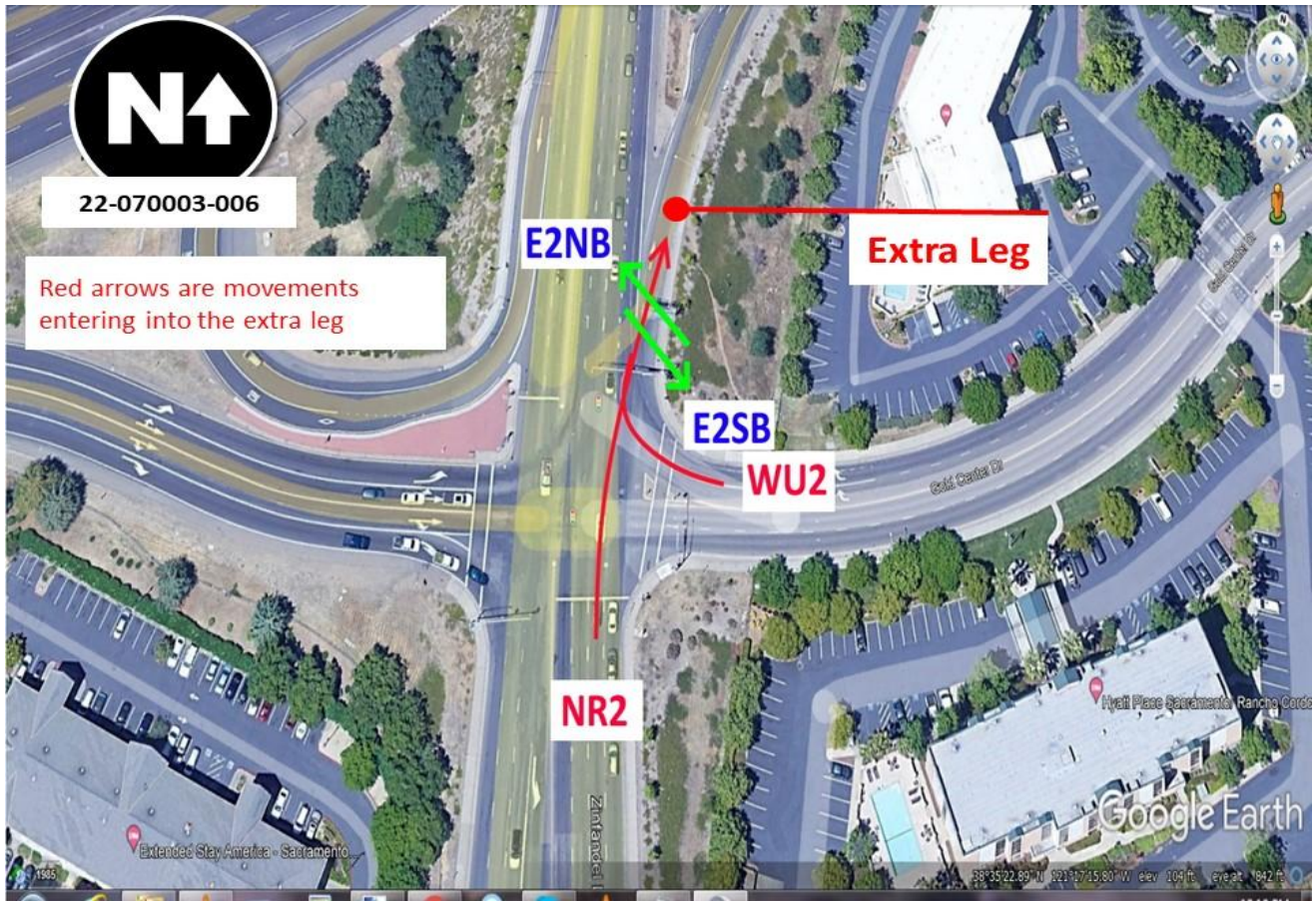
NS/EW Streets:	Zinfandel Dr					Zinfandel Dr				US-50 EB Ramps/Gold Center Dr				US-50 EB Ramps/Gold Center Dr					
AM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND					
	0	4	0	0	0	0	3	1	0	2	2	2	0	0	0	2	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
6:00 AM	0	98	4	0	25	0	50	14	0	17	27	117	0	0	0	13	0	2	367
6:15 AM	0	126	1	0	44	0	81	23	0	29	40	132	0	0	0	14	0	1	491
6:30 AM	0	169	2	0	53	0	97	30	0	24	28	164	0	0	0	7	0	2	576
6:45 AM	0	182	2	0	57	0	127	31	0	32	72	190	0	0	0	16	0	0	709
7:00 AM	0	179	0	0	54	0	117	35	0	47	54	119	0	0	0	10	0	5	620
7:15 AM	0	230	0	0	72	0	168	31	0	62	63	189	0	0	0	13	0	6	834
7:30 AM	0	295	1	0	109	0	226	53	0	56	59	198	0	0	0	19	0	4	1020
7:45 AM	0	299	3	0	85	0	274	49	0	87	112	220	0	0	0	24	0	5	1158
8:00 AM	0	289	2	0	112	0	301	46	0	83	77	189	0	0	0	17	0	5	1121
8:15 AM	0	216	1	0	103	0	280	47	0	75	70	172	0	0	0	17	0	6	987
8:30 AM	0	187	1	0	77	0	233	25	0	58	46	150	0	0	0	22	0	5	804
8:45 AM	0	191	4	0	61	0	200	22	0	93	58	161	0	0	0	19	0	4	813
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
TOTAL VOLUMES :	0	2461	21	0	852	0	2154	406	0	663	706	2001	0	0	0	191	0	45	9500
APPROACH %'s :	0.00%	73.82%	0.63%	0.00%	25.55%	0.00%	84.14%	15.86%	0.00%	19.67%	20.95%	59.38%	0.00%	0.00%	0.00%	80.93%	0.00%	19.07%	
PEAK HR :	07:30 AM - 08:30 AM																		TOTAL
PEAK HR VOL :	0	1099	7	0	409	0	1081	195	0	301	318	779	0	0	0	77	0	20	4286
PEAK HR FACTOR :	0.000	0.919	0.583	0.000	0.913	0.000	0.898	0.920	0.000	0.865	0.710	0.885	0.000	0.000	0.000	0.802	0.000	0.833	0.925
			0.935				0.919					0.834				0.836			

PM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND					
	0	4	0	0	0	0	3	1	0	2	2	2	0	0	0	2	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
3:00 PM	0	350	0	0	111	0	242	44	0	127	31	150	0	0	0	38	0	6	1099
3:15 PM	0	337	4	0	128	0	248	47	0	119	23	146	0	0	0	42	0	9	1103
3:30 PM	0	415	5	0	110	0	251	41	0	127	18	130	0	0	0	74	0	11	1182
3:45 PM	0	360	1	0	82	0	297	37	0	131	21	150	0	0	0	37	0	5	1121
4:00 PM	0	336	2	0	114	0	232	42	0	134	21	151	0	0	0	80	0	14	1126
4:15 PM	0	355	1	0	89	0	258	35	0	162	15	158	0	0	0	55	0	10	1138
4:30 PM	0	389	2	0	132	0	243	37	0	116	17	151	0	0	0	77	0	13	1177
4:45 PM	0	330	2	0	90	0	294	28	0	155	22	159	0	0	0	46	0	12	1138
5:00 PM	0	436	1	0	138	0	260	37	0	131	23	170	0	0	0	132	0	27	1355
5:15 PM	0	352	1	0	95	0	232	33	0	137	17	143	0	0	0	55	0	20	1085
5:30 PM	0	301	2	0	84	0	253	42	0	139	26	142	0	0	0	37	0	14	1040
5:45 PM	0	281	1	0	75	0	249	31	0	104	13	144	0	0	0	30	0	9	937
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
TOTAL VOLUMES :	0	4242	22	0	1248	0	3059	454	0	1582	247	1794	0	0	0	703	0	150	13501
APPROACH %'s :	0.00%	76.96%	0.40%	0.00%	22.64%	0.00%	87.08%	12.92%	0.00%	43.67%	6.82%	49.52%	0.00%	0.00%	0.00%	82.42%	0.00%	17.58%	
PEAK HR :	04:15 PM - 05:15 PM																		TOTAL
PEAK HR VOL :	0	1510	6	0	449	0	1055	137	0	564	77	638	0	0	0	310	0	62	4808
PEAK HR FACTOR :	0.000	0.866	0.750	0.000	0.813	0.000	0.897	0.926	0.000	0.870	0.837	0.938	0.000	0.000	0.000	0.587	0.000	0.574	0.887
			0.854				0.925					0.952				0.585			

National Data & Surveying Services

Intersection Turning Movement Count

Explanation for extra leg movements	
Movements entering the extra leg	
NR2	Movements coming from NB on Zinfandel Dr entering into the Extra Leg (US50-EB Ramps)
WU2	Movements coming from WB on Gold Center Drive entering into the Extra Leg (US50-EB Ramps)



National Data & Surveying Services Intersection Turning Movement Count

Location: Zinfandel Dr & US-50 WB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-007
Date: 1/11/2022

Data - Totals

NS/EW Streets:	Zinfandel Dr				Zinfandel Dr				US-50 WB Ramps				US-50 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	2.5	0	1.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	41	89	0	0	39	52	0	0	0	0	0	26	0	9	0	256
6:15 AM	0	52	114	0	0	52	56	0	0	0	0	0	51	0	14	0	339
6:30 AM	0	59	143	0	0	61	62	0	0	0	0	0	74	0	18	0	417
6:45 AM	0	89	136	0	0	84	56	0	0	0	0	0	67	0	21	0	453
7:00 AM	0	105	136	0	0	106	63	0	0	0	0	0	58	0	22	0	490
7:15 AM	0	131	166	0	0	94	77	0	0	0	0	0	95	0	41	0	604
7:30 AM	0	166	208	0	0	157	100	0	0	0	0	0	124	0	41	0	796
7:45 AM	0	238	165	0	0	152	63	0	0	0	0	0	166	0	56	0	840
8:00 AM	0	212	180	0	0	193	56	0	0	0	0	0	162	0	45	0	848
8:15 AM	0	171	132	0	0	165	70	0	0	0	0	0	157	0	27	0	722
8:30 AM	0	145	131	0	0	140	95	0	0	0	0	0	115	0	48	0	674
8:45 AM	0	170	130	0	0	108	67	0	0	0	0	0	117	0	60	0	652
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1579	1730	0	0	1351	817	0	0	0	0	0	1212	0	402	0	7091
APPROACH %'s :	0.00%	47.72%	52.28%	0.00%	0.00%	62.32%	37.68%	0.00%					75.09%	0.00%	24.91%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	787	685	0	0	667	289	0	0	0	0	0	609	0	169	0	3206
PEAK HR FACTOR :	0.000	0.827	0.823	0.000	0.000	0.864	0.723	0.000	0.000	0.000	0.000	0.000	0.917	0.000	0.754	0.000	0.945
		0.913				0.930								0.876			

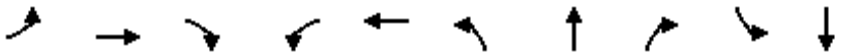
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	2.5	0	1.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	290	227	0	0	221	98	0	0	0	0	0	73	0	72	0	981
3:15 PM	0	288	204	0	0	202	99	0	0	0	0	0	89	0	62	0	944
3:30 PM	0	312	299	0	0	212	119	0	0	0	0	0	77	0	74	0	1093
3:45 PM	0	336	199	0	0	228	123	0	0	0	0	0	111	0	92	0	1089
4:00 PM	0	301	244	0	0	205	119	0	0	0	0	0	86	0	67	0	1022
4:15 PM	0	335	246	0	0	192	102	0	0	0	0	0	78	0	79	0	1032
4:30 PM	0	317	259	0	0	206	116	0	0	0	0	0	77	0	74	0	1049
4:45 PM	0	340	196	0	0	225	117	0	0	0	0	0	103	0	83	0	1064
5:00 PM	0	316	376	0	0	202	120	0	0	0	0	0	89	0	77	0	1180
5:15 PM	0	321	230	0	0	180	96	0	0	0	0	0	91	0	88	0	1006
5:30 PM	0	276	196	0	0	205	105	0	0	0	0	0	91	0	71	0	944
5:45 PM	0	266	154	0	0	192	99	0	0	0	0	0	79	0	70	0	860
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3698	2830	0	0	2470	1313	0	0	0	0	0	1044	0	909	0	12264
APPROACH %'s :	0.00%	56.65%	43.35%	0.00%	0.00%	65.29%	34.71%	0.00%					53.46%	0.00%	46.54%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	1308	1077	0	0	825	455	0	0	0	0	0	347	0	313	0	4325
PEAK HR FACTOR :	0.000	0.962	0.716	0.000	0.000	0.917	0.948	0.000	0.000	0.000	0.000	0.000	0.842	0.000	0.943	0.000	0.916
		0.862				0.936								0.887			

Appendix B

Analysis Worksheets for Existing (2022) Conditions

Queues

1: White Rock Rd & Kilgore Rd 05/26/2022

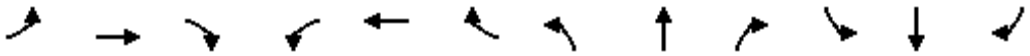


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	59	406	16	17	330	27	127	35	93	187
v/c Ratio	0.29	0.39	0.03	0.12	0.36	0.10	0.43	0.10	0.37	0.37
Control Delay	25.5	14.8	0.1	25.7	17.6	20.0	24.1	0.6	24.8	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	14.8	0.1	25.7	17.6	20.0	24.1	0.6	24.8	19.5
Queue Length 50th (ft)	15	37	0	4	26	6	32	0	24	21
Queue Length 95th (ft)	49	103	0	22	55	23	75	0	55	43
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	1057	3539	1583	1424	4933	1526	1606	1378	1526	2930
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.11	0.01	0.01	0.07	0.02	0.08	0.03	0.06	0.06

Intersection Summary

HCM 6th Signalized Intersection Summary

1: White Rock Rd & Kilgore Rd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	365	14	15	229	58	22	103	28	70	102	38
Future Volume (veh/h)	53	365	14	15	229	58	22	103	28	70	102	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	406	16	17	263	67	27	127	35	93	136	51
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.81	0.81	0.81	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	787	351	23	755	183	186	195	165	185	265	96
Arrive On Green	0.04	0.22	0.22	0.01	0.18	0.18	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	3554	1585	1781	4100	995	1781	1870	1585	1781	2560	921
Grp Volume(v), veh/h	59	406	16	17	216	114	27	127	35	93	93	94
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1691	1781	1870	1585	1781	1777	1705
Q Serve(g_s), s	1.3	3.8	0.3	0.4	2.1	2.2	0.5	2.5	0.8	1.9	1.9	2.0
Cycle Q Clear(g_c), s	1.3	3.8	0.3	0.4	2.1	2.2	0.5	2.5	0.8	1.9	1.9	2.0
Prop In Lane	1.00		1.00	1.00		0.59	1.00		1.00	1.00		0.54
Lane Grp Cap(c), veh/h	71	787	351	23	627	311	186	195	165	185	184	177
V/C Ratio(X)	0.83	0.52	0.05	0.74	0.34	0.37	0.15	0.65	0.21	0.50	0.50	0.53
Avail Cap(c_a), veh/h	1171	6544	2919	1640	6268	3114	1874	1968	1668	1874	1870	1794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	13.0	11.6	18.7	13.5	13.6	15.5	16.4	15.6	16.1	16.1	16.2
Incr Delay (d2), s/veh	9.0	0.2	0.0	15.4	0.1	0.3	0.1	1.4	0.2	0.8	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.2	0.1	0.2	0.7	0.7	0.2	1.0	0.2	0.7	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	13.2	11.7	34.1	13.6	13.8	15.6	17.7	15.8	16.9	16.9	17.1
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		481			347			189			280	
Approach Delay, s/veh		14.9			14.7			17.1			17.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	12.2		9.4	5.6	13.6		9.4				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	3.3	4.2		4.0	2.4	5.8		4.5				
Green Ext Time (p_c), s	0.0	0.4		0.2	0.0	0.6		0.1				

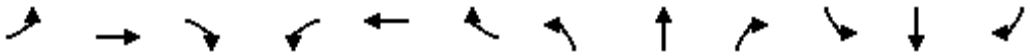
Intersection Summary	
HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

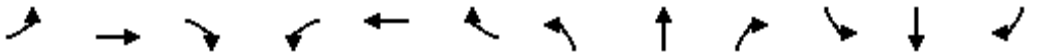
2: White Rock Rd & Sunrise Blvd 05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	142	232	105	88	111	133	141	851	78	328	947	81
v/c Ratio	0.45	0.44	0.32	0.35	0.17	0.41	0.45	0.48	0.13	0.63	0.46	0.12
Control Delay	43.9	37.8	11.1	44.9	36.3	11.7	43.9	22.6	4.9	40.8	18.9	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	37.8	11.1	44.9	36.3	11.7	43.9	22.6	4.9	40.8	18.9	4.2
Queue Length 50th (ft)	36	57	0	22	19	0	36	122	0	82	124	0
Queue Length 95th (ft)	75	109	41	55	43	52	79	195	27	124	152	15
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	1053	1737	830	1053	2509	848	1053	4303	1352	1053	4294	1350
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.13	0.13	0.08	0.04	0.16	0.13	0.20	0.06	0.31	0.22	0.06

Intersection Summary

HCM 6th Signalized Intersection Summary
2: White Rock Rd & Sunrise Blvd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	197	89	78	99	118	133	800	73	243	701	60
Future Volume (veh/h)	121	197	89	78	99	118	133	800	73	243	701	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	142	232	105	88	111	133	141	851	78	328	947	81
Peak Hour Factor	0.85	0.85	0.85	0.89	0.89	0.89	0.94	0.94	0.94	0.74	0.74	0.74
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	593	265	152	748	232	221	1860	578	420	2154	669
Arrive On Green	0.06	0.17	0.17	0.04	0.15	0.15	0.06	0.36	0.36	0.12	0.42	0.42
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	142	232	105	88	111	133	141	851	78	328	947	81
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	3.0	4.4	4.4	1.9	1.4	5.9	3.0	9.6	2.5	6.9	9.9	2.3
Cycle Q Clear(g_c), s	3.0	4.4	4.4	1.9	1.4	5.9	3.0	9.6	2.5	6.9	9.9	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	222	593	265	152	748	232	221	1860	578	420	2154	669
V/C Ratio(X)	0.64	0.39	0.40	0.58	0.15	0.57	0.64	0.46	0.14	0.78	0.44	0.12
Avail Cap(c_a), veh/h	1149	1891	843	1149	2717	843	1149	4754	1476	1149	4754	1476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	27.9	27.9	35.3	28.0	29.9	34.3	18.2	16.0	32.1	15.4	13.2
Incr Delay (d2), s/veh	1.1	0.2	0.4	1.3	0.3	7.4	1.1	0.4	0.2	1.2	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.8	1.7	0.8	0.6	2.6	1.3	3.6	0.9	2.9	3.6	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	28.1	28.3	36.6	28.3	37.3	35.5	18.6	16.2	33.3	15.7	13.4
LnGrp LOS	D	C	C	D	C	D	D	B	B	C	B	B
Approach Vol, veh/h		479			332			1070			1356	
Approach Delay, s/veh		30.3			34.1			20.6			19.8	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	37.5	10.3	17.0	14.6	33.2	8.8	18.5
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	5.0	11.9	5.0	7.9	8.9	11.6	3.9	6.4
Green Ext Time (p_c), s	0.1	18.3	0.1	3.1	0.2	15.8	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	12005	12071	11942	12106	12037	12006	12063
Vehs Exited	12038	12057	11910	12024	11992	11983	12102
Starting Vehs	343	303	302	314	292	303	350
Ending Vehs	310	317	334	396	337	326	311
Travel Distance (mi)	6302	6324	6220	6260	6257	6270	6300
Travel Time (hr)	341.9	335.4	332.9	337.8	331.1	334.7	334.4
Total Delay (hr)	113.1	106.5	107.2	110.6	104.5	107.2	105.8
Total Stops	10323	9942	9841	10011	9615	9799	9947
Fuel Used (gal)	251.5	250.0	246.4	249.3	247.4	249.6	250.2

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	11963	12009	12041	12026
Vehs Exited	11985	11963	12024	12008
Starting Vehs	318	297	312	311
Ending Vehs	296	343	329	332
Travel Distance (mi)	6265	6263	6286	6275
Travel Time (hr)	331.7	336.5	338.2	335.5
Total Delay (hr)	104.3	108.6	110.0	107.8
Total Stops	9859	9827	10035	9915
Fuel Used (gal)	247.2	248.4	250.0	249.0

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2867	2943	2879	2937	2803	2888	2967
Vehs Exited	2894	2891	2877	2910	2778	2871	2948
Starting Vehs	343	303	302	314	292	303	350
Ending Vehs	316	355	304	341	317	320	369
Travel Distance (mi)	1521	1542	1541	1525	1463	1516	1566
Travel Time (hr)	80.6	81.1	80.9	79.3	75.3	78.3	82.4
Total Delay (hr)	25.4	25.0	25.2	24.3	22.1	23.3	25.6
Total Stops	2452	2361	2402	2290	2206	2263	2451
Fuel Used (gal)	60.5	60.7	60.7	60.2	57.3	59.4	62.0

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2835	2821	2939	2885
Vehs Exited	2819	2831	2920	2874
Starting Vehs	318	297	312	311
Ending Vehs	334	287	331	325
Travel Distance (mi)	1516	1498	1539	1523
Travel Time (hr)	79.5	79.0	82.1	79.9
Total Delay (hr)	24.6	24.4	26.1	24.6
Total Stops	2393	2286	2471	2355
Fuel Used (gal)	59.6	58.9	61.1	60.0

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3346	3308	3289	3335	3413	3442	3308
Vehs Exited	3279	3278	3261	3258	3320	3378	3291
Starting Vehs	316	355	304	341	317	320	369
Ending Vehs	383	385	332	418	410	384	386
Travel Distance (mi)	1681	1676	1632	1656	1700	1733	1664
Travel Time (hr)	91.9	89.4	90.6	94.0	95.0	96.6	91.1
Total Delay (hr)	31.0	28.8	31.3	33.6	33.2	33.8	30.7
Total Stops	2793	2583	2677	2917	2765	2871	2772
Fuel Used (gal)	67.1	66.7	65.7	67.3	69.0	70.9	67.2

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3315	3293	3327	3337
Vehs Exited	3338	3214	3248	3284
Starting Vehs	334	287	331	325
Ending Vehs	311	366	410	378
Travel Distance (mi)	1670	1640	1660	1671
Travel Time (hr)	91.3	88.9	92.0	92.1
Total Delay (hr)	30.7	29.2	31.6	31.4
Total Stops	2804	2560	2823	2754
Fuel Used (gal)	66.9	65.1	66.8	67.3

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2875	2855	2812	2835	2929	2799	2858
Vehs Exited	2959	2923	2842	2924	3003	2849	2897
Starting Vehs	383	385	332	418	410	384	386
Ending Vehs	299	317	302	329	336	334	347
Travel Distance (mi)	1543	1543	1485	1513	1575	1499	1516
Travel Time (hr)	87.4	83.3	78.0	79.9	82.6	79.3	79.8
Total Delay (hr)	31.3	27.6	24.0	25.1	25.7	24.9	24.7
Total Stops	2696	2572	2313	2314	2357	2350	2337
Fuel Used (gal)	62.8	61.1	58.4	59.7	61.8	59.0	59.9

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2907	2939	2845	2864
Vehs Exited	2879	2996	2980	2926
Starting Vehs	311	366	410	378
Ending Vehs	339	309	275	317
Travel Distance (mi)	1533	1563	1542	1531
Travel Time (hr)	79.6	85.0	83.7	81.9
Total Delay (hr)	24.0	28.2	27.7	26.3
Total Stops	2328	2549	2443	2425
Fuel Used (gal)	59.7	62.5	61.8	60.7

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2917	2965	2962	2999	2892	2877	2930
Vehs Exited	2906	2965	2930	2932	2891	2885	2966
Starting Vehs	299	317	302	329	336	334	347
Ending Vehs	310	317	334	396	337	326	311
Travel Distance (mi)	1557	1563	1562	1566	1519	1522	1554
Travel Time (hr)	82.0	81.7	83.4	84.5	78.3	80.5	81.1
Total Delay (hr)	25.4	25.2	26.7	27.6	23.5	25.2	24.7
Total Stops	2382	2426	2449	2490	2287	2315	2387
Fuel Used (gal)	61.1	61.4	61.6	62.2	59.3	60.3	61.1

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2906	2956	2930	2933
Vehs Exited	2949	2922	2876	2920
Starting Vehs	339	309	275	317
Ending Vehs	296	343	329	332
Travel Distance (mi)	1545	1561	1545	1549
Travel Time (hr)	81.3	83.5	80.4	81.7
Total Delay (hr)	25.0	26.8	24.6	25.5
Total Stops	2334	2432	2298	2381
Fuel Used (gal)	61.0	61.9	60.3	61.0

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	11.9	1.8	3.1	4.6	21.5
Total Del/Veh (s)	37.0	14.1	10.8	11.3	18.7
Stop Delay (hr)	10.3	1.7	2.4	3.2	17.6
Stop Del/Veh (s)	31.9	12.8	8.3	7.9	15.3

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	1.6	1.6	4.6	3.5	11.4
Total Del/Veh (s)	15.7	15.0	8.9	8.5	9.9
Stop Delay (hr)	1.3	1.4	2.4	1.9	6.9
Stop Del/Veh (s)	12.1	12.8	4.5	4.5	6.0

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	3.7	0.1	0.1	2.4	0.2	0.4	0.0	0.0	0.0
Total Delay (hr)	4.0	0.8	0.1	0.3	0.6	0.7	0.6	6.6	0.1	8.6	4.2	0.7
Total Del/Veh (s)	53.4	43.3	10.0	59.5	60.6	12.2	65.1	21.4	16.4	56.4	14.5	7.5
Stop Delay (hr)	3.7	0.8	0.1	0.3	0.6	0.7	0.6	5.0	0.1	7.6	2.9	0.4
Stop Del/Veh (s)	49.8	39.1	10.0	56.3	54.1	11.0	60.9	16.3	13.5	49.5	10.0	3.5

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	27.4
Total Del/Veh (s)	26.3
Stop Delay (hr)	22.5
Stop Del/Veh (s)	21.7

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	2.7	2.8	2.9	0.0	7.3	0.0	4.3	20.1
Total Del/Veh (s)	31.3	29.0	12.8	1.4	16.8	15.5	14.0	17.0
Stop Delay (hr)	2.5	2.5	2.1	0.0	5.0	0.0	3.6	15.8
Stop Del/Veh (s)	29.2	26.6	9.1	0.1	11.4	10.8	11.7	13.3

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.4	0.2	0.0	0.0	0.1
Total Delay (hr)	6.4	0.5	1.1	0.9	8.9
Total Del/Veh (s)	36.0	9.3	4.8	4.8	13.8
Stop Delay (hr)	5.8	0.3	0.7	0.6	7.4
Stop Del/Veh (s)	32.3	6.6	3.2	3.1	11.5

Queuing and Blocking Report

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	290	305	307	148	148	280	138	116	39	262	240	246
Average Queue (ft)	206	219	226	76	78	182	63	47	6	144	140	134
95th Queue (ft)	277	291	300	124	127	272	120	95	28	224	225	216
Link Distance (ft)	1013	1013	1013	1013		54	54	54	54	204	204	204
Upstream Blk Time (%)						29	14	10	0	1	1	1
Queuing Penalty (veh)						73	35	25	0	7	5	5
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	111	131	113	119	244	254	267	166	162	179
Average Queue (ft)	53	74	59	61	126	128	126	83	97	106
95th Queue (ft)	97	113	96	101	203	211	212	128	146	164
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					0	0	0			
Queuing Penalty (veh)					1	1	2			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Queuing and Blocking Report

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	L	T	TR	R	L	L
Maximum Queue (ft)	207	212	119	47	62	2	46	84	119	101	32	148
Average Queue (ft)	88	123	25	18	19	0	14	31	61	21	2	38
95th Queue (ft)	165	185	70	42	47	2	38	68	102	66	15	98
Link Distance (ft)			411	411				351	351	351		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	263	263			167	237	237				143	143
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	264	279	295	285	302	173	183	190	138
Average Queue (ft)	158	167	168	177	189	64	84	95	42
95th Queue (ft)	239	247	257	261	273	143	158	168	100
Link Distance (ft)	391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)		0	0						
Queuing Penalty (veh)		0	0						
Storage Bay Dist (ft)									
Storage Blk Time (%)	11								
Queuing Penalty (veh)	4								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	EB	EB	EB	EB	EB	EB	B14	B14	WB	WB	NB	NB
Directions Served	L	L	T	T	R	R	T	T	R	R	T	T
Maximum Queue (ft)	145	195	193	498	300	250	157	314	47	33	264	273
Average Queue (ft)	61	93	90	141	174	81	8	23	3	1	117	138
95th Queue (ft)	119	161	158	351	334	264	153	226	22	15	233	257
Link Distance (ft)	440	440	440	440			1753	1753	568	568	488	488
Upstream Blk Time (%)				2								
Queuing Penalty (veh)				0								
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)				0	12	0						
Queuing Penalty (veh)				0	21	1						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	NB	NB	SB	SB	SB
Directions Served	T	TR	T	T	T
Maximum Queue (ft)	297	299	188	174	162
Average Queue (ft)	152	155	130	103	113
95th Queue (ft)	271	272	209	184	191
Link Distance (ft)	488	488	50	50	50
Upstream Blk Time (%)			26	22	24
Queuing Penalty (veh)			95	82	90
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

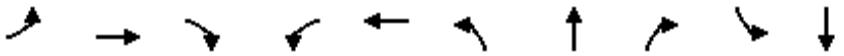
Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	196	226	298	210	162	164	125	140	150
Average Queue (ft)	107	126	161	72	59	58	51	68	65
95th Queue (ft)	172	192	242	176	129	135	111	121	130
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					2	2	1	0	0
Queuing Penalty (veh)					4	4	3	1	1
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)	0	0	5	0					
Queuing Penalty (veh)	0	1	4	0					

Queues

1: White Rock Rd & Kilgore Rd

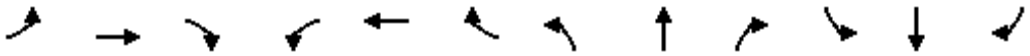
05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	62	480	50	64	547	29	123	57	60	261
v/c Ratio	0.34	0.57	0.11	0.34	0.49	0.11	0.45	0.18	0.23	0.49
Control Delay	31.2	22.6	1.7	31.1	20.4	24.3	29.5	3.7	25.7	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	22.6	1.7	31.1	20.4	24.3	29.5	3.7	25.7	23.1
Queue Length 50th (ft)	19	72	0	20	54	8	37	0	17	34
Queue Length 95th (ft)	48	111	0	61	102	29	87	9	43	61
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	886	3524	1577	1219	4963	1343	1414	1225	1343	2559
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.14	0.03	0.05	0.11	0.02	0.09	0.05	0.04	0.10

Intersection Summary

HCM 6th Signalized Intersection Summary
1: White Rock Rd & Kilgore Rd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	355	37	61	441	84	24	102	47	43	124	64
Future Volume (veh/h)	46	355	37	61	441	84	24	102	47	43	124	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	480	50	64	459	88	29	123	57	60	172	89
Peak Hour Factor	0.74	0.74	0.74	0.96	0.96	0.96	0.83	0.83	0.83	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	685	306	78	796	149	186	195	165	226	292	144
Arrive On Green	0.04	0.19	0.19	0.04	0.18	0.18	0.10	0.10	0.10	0.13	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	4320	808	1781	1870	1585	1781	2304	1138
Grp Volume(v), veh/h	62	480	50	64	359	188	29	123	57	60	131	130
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1725	1781	1870	1585	1781	1777	1665
Q Serve(g_s), s	1.4	5.0	1.0	1.4	3.8	4.0	0.6	2.5	1.3	1.2	2.8	3.0
Cycle Q Clear(g_c), s	1.4	5.0	1.0	1.4	3.8	4.0	0.6	2.5	1.3	1.2	2.8	3.0
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	75	685	306	78	627	318	186	195	165	226	225	211
V/C Ratio(X)	0.82	0.70	0.16	0.82	0.57	0.59	0.16	0.63	0.34	0.27	0.58	0.62
Avail Cap(c_a), veh/h	1118	6245	2785	1565	5982	3031	1789	1878	1592	1789	1784	1672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	15.0	13.4	18.9	14.8	14.9	16.2	17.1	16.6	15.7	16.4	16.5
Incr Delay (d2), s/veh	8.2	0.5	0.1	7.8	0.3	0.7	0.1	1.2	0.5	0.2	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.7	0.3	0.7	1.3	1.3	0.2	1.0	0.4	0.4	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	15.5	13.5	26.7	15.1	15.5	16.4	18.3	17.0	15.9	17.3	17.6
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		592			611			209			321	
Approach Delay, s/veh		16.5			16.5			17.7			17.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	12.5		10.6	6.8	12.9		9.6				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	3.4	6.0		5.0	3.4	7.0		4.5				
Green Ext Time (p_c), s	0.0	0.7		0.3	0.0	0.7		0.1				

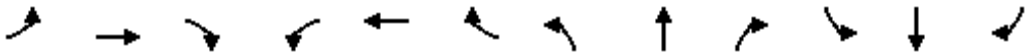
Intersection Summary		
HCM 6th Ctrl Delay		16.8
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

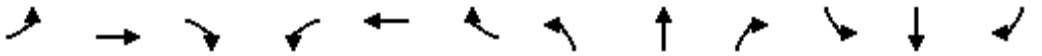
2: White Rock Rd & Sunrise Blvd 05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	111	222	145	182	408	394	258	975	67	261	1108	96
v/c Ratio	0.49	0.31	0.34	0.60	0.36	0.65	0.67	0.48	0.10	0.67	0.55	0.14
Control Delay	66.7	44.6	9.6	64.8	41.6	14.7	62.8	28.1	3.6	62.8	29.3	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.7	44.6	9.6	64.8	41.6	14.7	62.8	28.1	3.6	62.8	29.3	7.5
Queue Length 50th (ft)	41	74	0	67	93	40	95	193	0	96	227	5
Queue Length 95th (ft)	94	147	61	122	146	99	182	304	19	189	364	46
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	761	1256	655	761	1814	774	761	3168	1018	761	3159	1015
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.18	0.22	0.24	0.22	0.51	0.34	0.31	0.07	0.34	0.35	0.09

Intersection Summary

HCM 6th Signalized Intersection Summary
2: White Rock Rd & Sunrise Blvd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	211	138	144	322	311	227	858	59	243	1030	89
Future Volume (veh/h)	105	211	138	144	322	311	227	858	59	243	1030	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	222	145	182	408	394	258	975	67	261	1108	96
Peak Hour Factor	0.95	0.95	0.95	0.79	0.79	0.79	0.88	0.88	0.88	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	987	440	240	1528	474	316	1885	585	319	1889	586
Arrive On Green	0.05	0.28	0.28	0.07	0.30	0.30	0.09	0.37	0.37	0.09	0.37	0.37
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	111	222	145	182	408	394	258	975	67	261	1108	96
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	3.8	5.7	8.7	6.2	7.2	27.6	8.7	17.7	3.3	8.8	20.8	4.8
Cycle Q Clear(g_c), s	3.8	5.7	8.7	6.2	7.2	27.6	8.7	17.7	3.3	8.8	20.8	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	987	440	240	1528	474	316	1885	585	319	1889	586
V/C Ratio(X)	0.67	0.23	0.33	0.76	0.27	0.83	0.82	0.52	0.11	0.82	0.59	0.16
Avail Cap(c_a), veh/h	726	1195	533	726	1717	533	726	3004	933	726	3004	933
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	33.1	34.2	54.4	31.7	38.9	53.1	29.3	24.7	53.0	30.2	25.1
Incr Delay (d2), s/veh	1.8	0.0	0.2	1.9	0.3	13.7	2.0	0.5	0.2	2.0	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.5	3.4	2.7	3.0	12.4	3.9	7.3	1.3	3.9	8.6	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	33.2	34.3	56.3	32.1	52.5	55.0	29.7	24.9	55.0	30.8	25.4
LnGrp LOS	E	C	C	E	C	D	E	C	C	D	C	C
Approach Vol, veh/h		478			984			1300			1465	
Approach Delay, s/veh		39.2			44.7			34.5			34.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	49.8	11.2	41.6	16.5	49.7	13.7	39.0
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	10.7	22.8	5.8	29.6	10.8	19.7	8.2	10.7
Green Ext Time (p_c), s	0.2	21.2	0.1	6.0	0.2	18.1	0.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:05	3:05	3:05	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	13663	13759	13759	13672	13598	13699	13787
Vehs Exited	13655	13793	13788	13683	13563	13698	13726
Starting Vehs	348	375	380	404	343	379	337
Ending Vehs	356	341	351	393	378	380	398
Travel Distance (mi)	7150	7220	7214	7114	7120	7164	7198
Travel Time (hr)	390.0	398.3	392.7	389.0	391.4	395.1	395.5
Total Delay (hr)	129.7	134.8	129.7	129.6	131.6	134.0	133.3
Total Stops	11611	11930	11624	11878	11633	11995	11848
Fuel Used (gal)	287.8	293.4	290.8	288.0	288.9	290.1	291.3

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	13711	13741	13796	13720
Vehs Exited	13737	13738	13827	13723
Starting Vehs	386	378	374	367
Ending Vehs	360	381	343	369
Travel Distance (mi)	7187	7221	7224	7181
Travel Time (hr)	390.3	397.1	397.9	393.7
Total Delay (hr)	128.7	133.9	134.7	132.0
Total Stops	11737	11928	11903	11807
Fuel Used (gal)	289.7	292.5	293.0	290.6

Interval #0 Information Seeding

Start Time	3:05
End Time	3:15
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3293	3347	3256	3245	3206	3270	3424
Vehs Exited	3249	3333	3272	3304	3182	3288	3371
Starting Vehs	348	375	380	404	343	379	337
Ending Vehs	392	389	364	345	367	361	390
Travel Distance (mi)	1743	1762	1730	1741	1710	1730	1811
Travel Time (hr)	96.2	95.9	91.6	92.8	90.9	91.8	99.1
Total Delay (hr)	32.7	31.8	28.8	29.3	28.5	28.6	33.1
Total Stops	2970	2869	2738	2797	2696	2722	2984
Fuel Used (gal)	70.7	71.6	69.3	69.5	68.1	68.9	73.0

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3335	3334	3336	3304
Vehs Exited	3315	3345	3313	3297
Starting Vehs	386	378	374	367
Ending Vehs	406	367	397	380
Travel Distance (mi)	1776	1773	1765	1754
Travel Time (hr)	96.2	96.2	93.7	94.4
Total Delay (hr)	31.7	31.5	29.4	30.5
Total Stops	2942	2852	2811	2838
Fuel Used (gal)	71.7	71.4	70.3	70.5

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3767	3832	3728	3787	3790	3778	3693
Vehs Exited	3765	3746	3670	3649	3731	3719	3659
Starting Vehs	392	389	364	345	367	361	390
Ending Vehs	394	475	422	483	426	420	424
Travel Distance (mi)	1890	1918	1881	1871	1910	1900	1856
Travel Time (hr)	105.6	108.8	105.3	104.1	110.5	109.7	103.0
Total Delay (hr)	36.8	38.8	36.7	35.8	40.6	40.2	35.4
Total Stops	3196	3297	3141	3110	3258	3365	3102
Fuel Used (gal)	77.1	78.7	76.4	76.8	79.4	78.5	75.2

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3767	3811	3807	3776
Vehs Exited	3752	3747	3725	3718
Starting Vehs	406	367	397	380
Ending Vehs	421	431	479	439
Travel Distance (mi)	1900	1927	1899	1895
Travel Time (hr)	106.0	111.5	110.6	107.5
Total Delay (hr)	36.9	41.4	41.4	38.4
Total Stops	3208	3414	3308	3242
Fuel Used (gal)	77.8	79.9	79.0	77.9

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3318	3318	3383	3297	3321	3383	3356
Vehs Exited	3361	3436	3430	3365	3370	3418	3382
Starting Vehs	394	475	422	483	426	420	424
Ending Vehs	351	357	375	415	377	385	398
Travel Distance (mi)	1776	1802	1811	1742	1781	1793	1770
Travel Time (hr)	95.3	100.8	97.9	95.1	96.8	98.7	97.8
Total Delay (hr)	30.5	34.8	32.0	31.5	32.2	33.5	33.2
Total Stops	2802	2978	2805	2930	2843	2955	2926
Fuel Used (gal)	70.9	73.5	72.7	70.5	71.8	72.5	72.0

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3265	3332	3346	3331
Vehs Exited	3362	3369	3467	3396
Starting Vehs	421	431	479	439
Ending Vehs	324	394	358	370
Travel Distance (mi)	1760	1786	1809	1783
Travel Time (hr)	93.4	96.7	99.4	97.2
Total Delay (hr)	29.4	31.7	33.7	32.2
Total Stops	2730	2885	2980	2883
Fuel Used (gal)	70.1	71.7	73.5	71.9

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3285	3262	3392	3343	3281	3268	3314
Vehs Exited	3280	3278	3416	3365	3280	3273	3314
Starting Vehs	351	357	375	415	377	385	398
Ending Vehs	356	341	351	393	378	380	398
Travel Distance (mi)	1740	1739	1792	1760	1720	1741	1761
Travel Time (hr)	92.9	92.8	97.8	97.0	93.1	94.8	95.7
Total Delay (hr)	29.6	29.5	32.3	33.0	30.3	31.7	31.6
Total Stops	2643	2786	2940	3041	2836	2953	2836
Fuel Used (gal)	69.1	69.5	72.4	71.2	69.6	70.2	71.0

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3344	3264	3307	3304
Vehs Exited	3308	3277	3322	3309
Starting Vehs	324	394	358	370
Ending Vehs	360	381	343	369
Travel Distance (mi)	1751	1735	1752	1749
Travel Time (hr)	94.7	92.6	94.1	94.6
Total Delay (hr)	30.7	29.4	30.2	30.8
Total Stops	2857	2777	2804	2846
Fuel Used (gal)	70.1	69.5	70.2	70.3

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	14.1	1.2	7.0	4.4	26.8
Total Del/Veh (s)	38.1	11.1	13.9	12.3	19.9
Stop Delay (hr)	12.0	1.1	5.2	3.3	21.6
Stop Del/Veh (s)	32.2	10.0	10.4	9.0	16.0

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	1.9	3.0	7.7	3.2	15.9
Total Del/Veh (s)	23.0	24.5	10.7	7.9	11.9
Stop Delay (hr)	1.7	2.7	3.8	1.8	9.8
Stop Del/Veh (s)	19.5	21.5	5.3	4.3	7.4

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	3.0	0.2	0.2	2.5	0.4	0.7	0.0	0.0	0.0
Total Delay (hr)	5.2	0.8	0.1	0.7	1.5	3.9	0.9	8.9	0.2	5.1	6.9	0.6
Total Del/Veh (s)	58.6	42.4	10.8	62.7	54.4	23.3	70.9	27.4	23.0	61.1	21.8	7.5
Stop Delay (hr)	4.8	0.7	0.1	0.6	1.3	3.4	0.8	6.9	0.2	4.7	5.2	0.3
Stop Del/Veh (s)	54.4	38.3	10.7	59.1	47.4	20.1	66.4	21.1	18.3	55.8	16.4	4.1

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.2
Total Delay (hr)	34.8
Total Del/Veh (s)	30.3
Stop Delay (hr)	29.0
Stop Del/Veh (s)	25.2

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay (hr)	5.8	0.6	1.2	1.4	9.9	0.0	3.7	22.5
Total Del/Veh (s)	35.6	28.2	6.7	10.9	17.0	11.6	12.3	16.4
Stop Delay (hr)	5.2	0.6	0.7	1.0	6.3	0.0	3.0	16.8
Stop Del/Veh (s)	32.2	26.6	4.1	7.8	10.7	7.5	10.2	12.3

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.2	0.0	0.0	0.1
Total Delay (hr)	3.7	1.1	1.6	0.8	7.2
Total Del/Veh (s)	36.3	12.5	4.2	3.4	9.0
Stop Delay (hr)	3.4	0.9	0.9	0.5	5.7
Stop Del/Veh (s)	33.5	10.2	2.5	1.9	7.1

Queuing and Blocking Report

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	344	366	366	116	129	302	256	239	63	249	248	221
Average Queue (ft)	239	256	261	58	63	267	145	130	19	144	137	127
95th Queue (ft)	321	342	345	97	103	321	233	217	51	223	216	198
Link Distance (ft)	1013	1013	1013	1013		54	54	54	54	204	204	204
Upstream Blk Time (%)						34	28	25	2	1	1	0
Queuing Penalty (veh)						151	125	114	9	5	3	2
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	128	147	171	178	340	335	313	154	178	195
Average Queue (ft)	57	82	92	94	183	185	183	83	99	110
95th Queue (ft)	105	129	151	151	285	289	286	131	154	173
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					2	2	2			
Queuing Penalty (veh)					13	14	16			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Queuing and Blocking Report

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	L	T	TR	R	L	L
Maximum Queue (ft)	253	269	266	54	73	15	86	179	300	284	48	167
Average Queue (ft)	115	156	34	17	20	1	32	71	151	136	6	52
95th Queue (ft)	218	236	131	42	53	14	72	138	241	235	29	126
Link Distance (ft)			411	411				351	351	351		
Upstream Blk Time (%)			0						0	0		
Queuing Penalty (veh)			0						0	0		
Storage Bay Dist (ft)	263	263			167	237	237				143	143
Storage Blk Time (%)	0	1	0		0			0				0
Queuing Penalty (veh)	0	0	0		0			0				0

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	318	351	395	200	210	254	258	264	132
Average Queue (ft)	178	212	240	106	117	116	134	144	37
95th Queue (ft)	284	327	372	170	181	218	227	232	95
Link Distance (ft)	391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)	0	0	1						
Queuing Penalty (veh)	0	0	0						
Storage Bay Dist (ft)									
Storage Blk Time (%)	13								
Queuing Penalty (veh)	6								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	EB	EB	EB	EB	EB	EB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	R	R	R	R	T	T	T	TR
Maximum Queue (ft)	234	326	61	123	268	235	199	200	291	330	359	408
Average Queue (ft)	119	194	26	20	98	22	92	70	137	179	197	222
95th Queue (ft)	203	287	54	77	238	128	176	156	255	307	328	365
Link Distance (ft)	440	440	440	440			568	568	488	488	488	488
Upstream Blk Time (%)											0	0
Queuing Penalty (veh)											0	0
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)					2	0						
Queuing Penalty (veh)					1	0						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	SB	SB	SB
Directions Served	T	T	T
Maximum Queue (ft)	184	170	167
Average Queue (ft)	114	100	105
95th Queue (ft)	183	170	178
Link Distance (ft)	50	50	50
Upstream Blk Time (%)	23	23	23
Queuing Penalty (veh)	82	83	83
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	114	129	169	151	182	183	152	152	152
Average Queue (ft)	56	80	106	69	77	82	70	64	60
95th Queue (ft)	97	121	154	115	156	157	133	121	125
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					3	3	2	0	0
Queuing Penalty (veh)					13	12	7	1	1
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)			0	0					
Queuing Penalty (veh)			0	0					

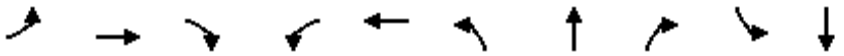
Appendix C

Analysis Worksheets for
Opening Year (2024) plus Proposed Project Conditions

Queues

1: White Rock Rd & Kilgore Rd

05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	60	413	41	40	324	76	116	77	79	158
v/c Ratio	0.30	0.50	0.09	0.23	0.32	0.28	0.41	0.24	0.34	0.34
Control Delay	26.0	19.1	0.9	26.1	16.5	22.7	24.7	6.4	25.4	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	19.1	0.9	26.1	16.5	22.7	24.7	6.4	25.4	20.2
Queue Length 50th (ft)	16	53	0	10	26	19	29	0	20	17
Queue Length 95th (ft)	51	106	3	39	55	57	80	23	61	47
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	1053	3539	1583	1413	4933	1514	1593	1368	1514	2906
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.12	0.03	0.03	0.07	0.05	0.07	0.06	0.05	0.05

Intersection Summary

HCM 6th Signalized Intersection Summary
1: White Rock Rd & Kilgore Rd 05/26/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	380	38	37	238	60	70	107	71	73	106	40
Future Volume (veh/h)	55	380	38	37	238	60	70	107	71	73	106	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	413	41	40	259	65	76	116	77	79	115	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	745	332	49	764	183	192	201	171	165	238	85
Arrive On Green	0.04	0.21	0.21	0.03	0.19	0.19	0.11	0.11	0.11	0.09	0.09	0.09
Sat Flow, veh/h	1781	3554	1585	1781	4114	984	1781	1870	1585	1781	2564	918
Grp Volume(v), veh/h	60	413	41	40	212	112	76	116	77	79	78	80
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1693	1781	1870	1585	1781	1777	1705
Q Serve(g_s), s	1.3	3.9	0.8	0.8	2.0	2.2	1.5	2.2	1.7	1.6	1.6	1.7
Cycle Q Clear(g_c), s	1.3	3.9	0.8	0.8	2.0	2.2	1.5	2.2	1.7	1.6	1.6	1.7
Prop In Lane	1.00		1.00	1.00		0.58	1.00		1.00	1.00		0.54
Lane Grp Cap(c), veh/h	72	745	332	49	632	315	192	201	171	165	165	158
V/C Ratio(X)	0.83	0.55	0.12	0.82	0.34	0.36	0.40	0.58	0.45	0.48	0.47	0.51
Avail Cap(c_a), veh/h	1182	6603	2945	1655	6325	3146	1891	1986	1683	1891	1887	1810
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	13.3	12.1	18.2	13.3	13.4	15.7	16.0	15.8	16.2	16.2	16.3
Incr Delay (d2), s/veh	8.9	0.2	0.1	12.1	0.1	0.3	0.5	1.0	0.7	0.8	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.3	0.2	0.5	0.6	0.7	0.5	0.9	0.6	0.6	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	13.6	12.1	30.3	13.4	13.6	16.2	17.0	16.5	17.0	17.0	17.2
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		514			364			269			237	
Approach Delay, s/veh		15.0			15.3			16.6			17.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	12.2		9.0	6.1	13.1		9.5				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	3.3	4.2		3.7	2.8	5.9		4.2				
Green Ext Time (p_c), s	0.0	0.4		0.1	0.0	0.6		0.1				

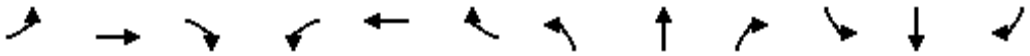
Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

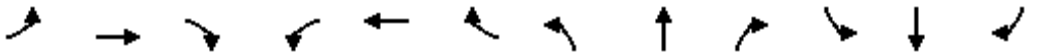
2: White Rock Rd & Sunrise Blvd 05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	171	235	101	88	117	134	150	904	83	275	792	84
v/c Ratio	0.50	0.42	0.30	0.36	0.17	0.41	0.47	0.48	0.13	0.60	0.38	0.12
Control Delay	44.9	37.6	10.9	46.6	37.4	11.8	45.3	22.3	5.2	43.1	18.8	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.9	37.6	10.9	46.6	37.4	11.8	45.3	22.3	5.2	43.1	18.8	4.5
Queue Length 50th (ft)	44	59	0	23	20	0	39	131	0	70	104	0
Queue Length 95th (ft)	95	119	48	57	46	56	86	208	30	138	165	28
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	1022	1686	807	1022	2435	828	1022	4198	1321	1022	4189	1319
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.14	0.13	0.09	0.05	0.16	0.15	0.22	0.06	0.27	0.19	0.06

Intersection Summary

HCM 6th Signalized Intersection Summary
2: White Rock Rd & Sunrise Blvd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	216	93	81	108	123	138	832	76	253	729	77
Future Volume (veh/h)	157	216	93	81	108	123	138	832	76	253	729	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	235	101	88	117	134	150	904	83	275	792	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	626	279	151	748	232	230	1944	604	364	2141	665
Arrive On Green	0.07	0.18	0.18	0.04	0.15	0.15	0.07	0.38	0.38	0.11	0.42	0.42
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	171	235	101	88	117	134	150	904	83	275	792	84
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	3.7	4.5	4.3	1.9	1.6	6.1	3.3	10.3	2.7	6.0	8.3	2.5
Cycle Q Clear(g_c), s	3.7	4.5	4.3	1.9	1.6	6.1	3.3	10.3	2.7	6.0	8.3	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	626	279	151	748	232	230	1944	604	364	2141	665
V/C Ratio(X)	0.67	0.38	0.36	0.58	0.16	0.58	0.65	0.46	0.14	0.76	0.37	0.13
Avail Cap(c_a), veh/h	1114	1833	818	1114	2634	818	1114	4610	1431	1114	4610	1431
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	28.2	28.1	36.4	28.9	30.9	35.3	18.1	15.7	33.7	15.5	13.8
Incr Delay (d2), s/veh	1.2	0.1	0.3	1.3	0.3	7.6	1.2	0.4	0.2	1.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.9	1.6	0.8	0.6	2.8	1.4	3.9	0.9	2.5	3.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.2	28.3	28.4	37.7	29.2	38.4	36.5	18.4	15.9	34.9	15.7	14.0
LnGrp LOS	D	C	C	D	C	D	D	B	B	C	B	B
Approach Vol, veh/h		507			339			1137			1151	
Approach Delay, s/veh		31.0			35.1			20.6			20.2	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	38.3	11.2	17.4	13.7	35.3	8.9	19.7
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	5.3	10.3	5.7	8.1	8.0	12.3	3.9	6.5
Green Ext Time (p_c), s	0.1	14.5	0.1	3.2	0.2	17.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	11999	12030	12213	12009	12199	12089	12215
Vehs Exited	12111	12069	12201	11981	12220	12089	12233
Starting Vehs	390	416	368	363	353	376	383
Ending Vehs	278	377	380	391	332	376	365
Travel Distance (mi)	6576	6579	6664	6534	6645	6617	6678
Travel Time (hr)	358.0	360.3	363.0	353.1	360.3	365.1	365.4
Total Delay (hr)	118.2	120.6	120.3	114.5	117.9	123.9	121.8
Total Stops	10899	11023	11034	10462	11023	11172	11091
Fuel Used (gal)	262.6	264.0	267.4	260.0	265.4	266.6	267.9

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	12034	12141	12008	12095
Vehs Exited	12035	12123	12049	12112
Starting Vehs	345	360	377	373
Ending Vehs	344	378	336	357
Travel Distance (mi)	6594	6666	6536	6609
Travel Time (hr)	362.0	359.9	357.0	360.4
Total Delay (hr)	121.9	117.2	118.4	119.5
Total Stops	10987	10813	10830	10931
Fuel Used (gal)	264.6	265.6	261.2	264.5

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2903	2988	2938	2878	2952	2930	3052
Vehs Exited	2936	3033	2959	2913	2950	2953	3086
Starting Vehs	390	416	368	363	353	376	383
Ending Vehs	357	371	347	328	355	353	349
Travel Distance (mi)	1600	1636	1611	1578	1603	1612	1669
Travel Time (hr)	88.3	89.1	84.9	82.5	87.5	87.8	90.1
Total Delay (hr)	30.0	29.5	26.5	25.1	28.8	29.1	29.4
Total Stops	2733	2678	2494	2393	2675	2621	2695
Fuel Used (gal)	64.2	65.9	63.5	62.0	64.0	64.6	67.0

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2965	2959	2947	2950
Vehs Exited	2986	3015	3003	2982
Starting Vehs	345	360	377	373
Ending Vehs	324	304	321	344
Travel Distance (mi)	1640	1636	1620	1620
Travel Time (hr)	90.4	88.6	89.7	87.9
Total Delay (hr)	31.0	29.0	30.5	28.9
Total Stops	2906	2594	2698	2644
Fuel Used (gal)	65.8	65.4	65.2	64.8

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3247	3155	3224	3174	3296	3228	3151
Vehs Exited	3261	3178	3189	3126	3261	3176	3131
Starting Vehs	357	371	347	328	355	353	349
Ending Vehs	343	348	382	376	390	405	369
Travel Distance (mi)	1763	1723	1755	1711	1783	1742	1708
Travel Time (hr)	95.9	96.4	97.9	94.3	97.7	97.3	97.4
Total Delay (hr)	31.6	33.6	33.9	32.0	32.6	33.8	35.2
Total Stops	2872	2967	2964	2761	3020	2906	3147
Fuel Used (gal)	70.5	70.0	70.8	68.9	71.9	70.3	69.8

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3160	3205	3155	3199
Vehs Exited	3101	3091	3067	3156
Starting Vehs	324	304	321	344
Ending Vehs	383	418	409	379
Travel Distance (mi)	1725	1743	1693	1735
Travel Time (hr)	95.2	95.5	92.4	96.0
Total Delay (hr)	32.3	32.1	30.6	32.8
Total Stops	2900	2950	2763	2924
Fuel Used (gal)	69.2	69.7	67.4	69.8

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2927	2904	2985	2963	3031	2941	3019
Vehs Exited	2939	2882	2994	2994	3060	3054	3010
Starting Vehs	343	348	382	376	390	405	369
Ending Vehs	331	370	373	345	361	292	378
Travel Distance (mi)	1624	1588	1626	1617	1664	1641	1670
Travel Time (hr)	88.0	85.5	87.4	87.5	89.5	89.7	90.9
Total Delay (hr)	28.7	27.6	28.0	28.2	29.0	29.8	30.0
Total Stops	2669	2598	2669	2665	2722	2720	2711
Fuel Used (gal)	64.5	62.8	65.1	64.5	66.1	65.9	66.7

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2953	2945	2952	2962
Vehs Exited	2988	2996	2997	2992
Starting Vehs	383	418	409	379
Ending Vehs	348	367	364	354
Travel Distance (mi)	1615	1626	1622	1629
Travel Time (hr)	86.1	86.0	87.3	87.8
Total Delay (hr)	27.3	26.7	28.0	28.3
Total Stops	2497	2446	2615	2627
Fuel Used (gal)	64.2	63.9	64.4	64.8

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2922	2983	3066	2994	2920	2990	2993
Vehs Exited	2975	2976	3059	2948	2949	2906	3006
Starting Vehs	331	370	373	345	361	292	378
Ending Vehs	278	377	380	391	332	376	365
Travel Distance (mi)	1590	1631	1672	1628	1594	1622	1631
Travel Time (hr)	85.8	89.3	92.8	88.7	85.6	90.3	86.9
Total Delay (hr)	27.9	30.0	31.8	29.3	27.4	31.2	27.3
Total Stops	2625	2780	2907	2643	2606	2925	2538
Fuel Used (gal)	63.3	65.3	67.8	64.6	63.4	65.8	64.5

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2956	3032	2954	2980
Vehs Exited	2960	3021	2982	2976
Starting Vehs	348	367	364	354
Ending Vehs	344	378	336	357
Travel Distance (mi)	1614	1661	1601	1624
Travel Time (hr)	90.2	89.8	87.7	88.7
Total Delay (hr)	31.3	29.4	29.3	29.5
Total Stops	2684	2823	2754	2727
Fuel Used (gal)	65.3	66.5	64.3	65.1

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	12.2	2.1	3.3	4.6	22.2
Total Del/Veh (s)	37.4	15.0	11.0	11.3	18.9
Stop Delay (hr)	10.5	1.9	2.5	3.2	18.2
Stop Del/Veh (s)	32.3	13.6	8.4	7.9	15.5

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	1.8	1.9	5.0	3.7	12.4
Total Del/Veh (s)	16.9	16.7	9.3	8.7	10.5
Stop Delay (hr)	1.4	1.6	2.5	2.0	7.5
Stop Del/Veh (s)	13.1	14.2	4.7	4.6	6.3

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	3.5	0.1	0.2	2.4	0.3	0.5	0.0	0.0	0.0
Total Delay (hr)	4.1	0.9	0.1	0.3	0.7	1.1	0.8	8.0	0.2	9.4	5.0	0.9
Total Del/Veh (s)	56.5	46.2	10.7	64.4	61.2	14.9	66.8	25.5	24.6	57.9	16.5	8.6
Stop Delay (hr)	3.8	0.9	0.1	0.3	0.6	1.0	0.7	6.1	0.1	8.3	3.5	0.5
Stop Del/Veh (s)	52.6	41.9	10.6	61.3	54.9	13.6	62.6	19.3	20.2	50.8	11.6	4.4

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.1
Total Delay (hr)	31.5
Total Del/Veh (s)	28.9
Stop Delay (hr)	25.8
Stop Del/Veh (s)	23.7

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	2.7	2.8	3.4	0.0	8.7	0.0	5.0	22.6
Total Del/Veh (s)	30.2	29.0	14.4	1.6	19.1	14.8	15.3	18.3
Stop Delay (hr)	2.5	2.6	2.5	0.0	5.8	0.0	4.2	17.5
Stop Del/Veh (s)	28.0	26.6	10.5	0.3	12.7	9.2	12.9	14.2

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.4	0.3	0.0	0.0	0.1
Total Delay (hr)	7.1	0.5	1.3	1.1	10.0
Total Del/Veh (s)	37.7	10.0	5.4	5.3	14.8
Stop Delay (hr)	6.4	0.4	0.9	0.7	8.3
Stop Del/Veh (s)	33.7	6.9	3.8	3.5	12.3

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	311	324	337	148	160	289	146	132	37	241	252	232
Average Queue (ft)	211	224	232	80	85	188	66	53	5	141	137	131
95th Queue (ft)	284	302	308	131	136	284	127	110	25	222	223	214
Link Distance (ft)	1013	1013	1013	1013		54	54	54	54	204	204	204
Upstream Blk Time (%)						29	14	10	0	1	1	1
Queuing Penalty (veh)						80	39	28	0	6	4	4
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	111	144	131	135	233	258	257	160	186	192
Average Queue (ft)	57	79	66	71	135	137	138	88	102	111
95th Queue (ft)	97	122	107	116	207	216	219	137	159	167
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					0	0	0			
Queuing Penalty (veh)					1	1	2			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	L	T	TR	R	L	L
Maximum Queue (ft)	225	232	127	52	65	6	63	85	122	124	51	164
Average Queue (ft)	78	139	27	20	18	0	15	31	66	40	5	46
95th Queue (ft)	165	215	75	45	46	4	46	69	112	93	31	113
Link Distance (ft)			411	411				351	351	351		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	263	263			167	237	237				143	143
Storage Blk Time (%)	0	0										0
Queuing Penalty (veh)	0	0										0

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	268	336	380	304	311	189	202	217	179
Average Queue (ft)	156	207	234	198	211	80	100	115	53
95th Queue (ft)	240	307	338	287	296	169	181	194	129
Link Distance (ft)	391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)		0	0						
Queuing Penalty (veh)		0	0						
Storage Bay Dist (ft)									
Storage Blk Time (%)	9								
Queuing Penalty (veh)	3								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	EB	EB	EB	EB	EB	EB	B14	B14	WB	WB	NB	NB
Directions Served	L	L	T	T	R	R	T	T	R	R	T	T
Maximum Queue (ft)	126	218	166	448	300	250	10	124	57	52	243	293
Average Queue (ft)	47	108	91	160	202	118	0	9	6	4	113	152
95th Queue (ft)	98	188	144	387	351	311	8	117	33	27	218	271
Link Distance (ft)	440	440	440	440			1753	1753	568	568	488	488
Upstream Blk Time (%)				1								
Queuing Penalty (veh)				0								
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)					16	1						
Queuing Penalty (veh)					27	1						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	NB	NB	SB	SB	SB
Directions Served	T	TR	T	T	T
Maximum Queue (ft)	310	390	190	175	166
Average Queue (ft)	179	220	144	115	120
95th Queue (ft)	292	363	219	195	194
Link Distance (ft)	488	488	50	50	50
Upstream Blk Time (%)			29	26	28
Queuing Penalty (veh)			110	99	106
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

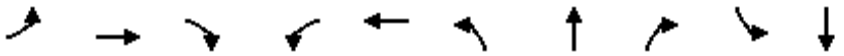
Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	195	258	298	210	175	180	146	164	146
Average Queue (ft)	118	137	169	87	65	64	53	77	75
95th Queue (ft)	182	212	249	202	145	147	123	135	133
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					3	2	1	1	0
Queuing Penalty (veh)					8	7	4	2	2
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)	0	1	6	0					
Queuing Penalty (veh)	1	2	5	0					

Queues

1: White Rock Rd & Kilgore Rd

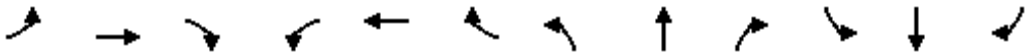
05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	52	401	91	113	594	57	115	80	49	213
v/c Ratio	0.31	0.56	0.23	0.46	0.38	0.24	0.45	0.27	0.22	0.47
Control Delay	31.0	23.6	6.6	29.9	16.9	25.6	29.5	7.4	26.5	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.0	23.6	6.6	29.9	16.9	25.6	29.5	7.4	26.5	22.9
Queue Length 50th (ft)	16	58	0	33	56	16	33	0	14	26
Queue Length 95th (ft)	52	119	30	88	104	51	90	27	48	66
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	852	3539	1583	1193	4963	1363	1435	1241	1363	2597
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.11	0.06	0.09	0.12	0.04	0.08	0.06	0.04	0.08

Intersection Summary

HCM 6th Signalized Intersection Summary
1: White Rock Rd & Kilgore Rd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	369	84	104	459	87	52	106	74	45	129	67
Future Volume (veh/h)	48	369	84	104	459	87	52	106	74	45	129	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	401	91	113	499	95	57	115	80	49	140	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	622	277	144	912	170	186	195	165	196	253	125
Arrive On Green	0.03	0.18	0.18	0.08	0.21	0.21	0.10	0.10	0.10	0.11	0.11	0.11
Sat Flow, veh/h	1781	3554	1585	1781	4324	806	1781	1870	1585	1781	2303	1139
Grp Volume(v), veh/h	52	401	91	113	391	203	57	115	80	49	106	107
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1725	1781	1870	1585	1781	1777	1665
Q Serve(g_s), s	1.2	4.2	2.0	2.5	4.1	4.2	1.2	2.3	1.9	1.0	2.3	2.4
Cycle Q Clear(g_c), s	1.2	4.2	2.0	2.5	4.1	4.2	1.2	2.3	1.9	1.0	2.3	2.4
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	62	622	277	144	718	364	186	195	165	196	195	183
V/C Ratio(X)	0.84	0.64	0.33	0.79	0.54	0.56	0.31	0.59	0.48	0.25	0.54	0.58
Avail Cap(c_a), veh/h	1114	6221	2775	1559	5959	3020	1782	1871	1586	1782	1777	1666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.2	15.3	14.4	18.0	14.1	14.1	16.6	17.1	16.9	16.3	16.9	16.9
Incr Delay (d2), s/veh	10.6	0.4	0.3	3.5	0.2	0.5	0.3	1.1	0.8	0.2	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.5	0.6	1.0	1.3	1.4	0.4	0.9	0.6	0.4	0.8	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	15.8	14.7	21.6	14.3	14.6	16.9	18.1	17.7	16.5	17.7	18.0
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		544			707			252			262	
Approach Delay, s/veh		16.9			15.6			17.7			17.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	13.6		9.9	8.3	12.2		9.6				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	3.2	6.2		4.4	4.5	6.2		4.3				
Green Ext Time (p_c), s	0.0	0.8		0.2	0.0	0.5		0.1				

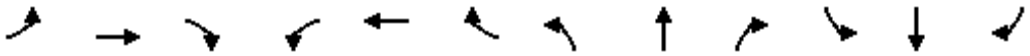
Intersection Summary			
HCM 6th Ctrl Delay		16.6	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

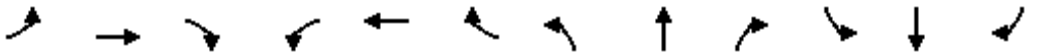
2: White Rock Rd & Sunrise Blvd 05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	138	245	157	163	376	351	257	970	66	275	1164	135
v/c Ratio	0.54	0.36	0.36	0.58	0.37	0.62	0.67	0.46	0.09	0.68	0.55	0.19
Control Delay	67.7	46.7	9.7	67.1	44.8	13.5	64.5	27.4	3.3	64.1	28.6	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.7	46.7	9.7	67.1	44.8	13.5	64.5	27.4	3.3	64.1	28.6	11.0
Queue Length 50th (ft)	53	86	0	62	92	26	98	191	0	105	239	23
Queue Length 95th (ft)	113	161	64	128	159	140	187	311	20	198	383	79
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	738	1218	647	738	1759	750	738	3072	989	738	3063	987
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.20	0.24	0.22	0.21	0.47	0.35	0.32	0.07	0.37	0.38	0.14

Intersection Summary

HCM 6th Signalized Intersection Summary
2: White Rock Rd & Sunrise Blvd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	225	144	150	346	323	236	892	61	253	1071	124
Future Volume (veh/h)	127	225	144	150	346	323	236	892	61	253	1071	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	138	245	157	163	376	351	257	970	66	275	1164	135
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	193	957	427	219	1414	439	314	1951	606	332	1978	614
Arrive On Green	0.06	0.27	0.27	0.06	0.28	0.28	0.09	0.38	0.38	0.10	0.39	0.39
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	138	245	157	163	376	351	257	970	66	275	1164	135
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	4.7	6.5	9.7	5.6	6.9	24.8	8.8	17.5	3.2	9.4	21.8	6.9
Cycle Q Clear(g_c), s	4.7	6.5	9.7	5.6	6.9	24.8	8.8	17.5	3.2	9.4	21.8	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	957	427	219	1414	439	314	1951	606	332	1978	614
V/C Ratio(X)	0.71	0.26	0.37	0.74	0.27	0.80	0.82	0.50	0.11	0.83	0.59	0.22
Avail Cap(c_a), veh/h	716	1178	525	716	1693	525	716	2962	919	716	2962	919
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	34.6	35.8	55.5	34.1	40.5	53.9	28.4	24.0	53.6	29.3	24.8
Incr Delay (d2), s/veh	1.8	0.1	0.2	1.9	0.3	12.0	2.0	0.4	0.2	2.0	0.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.8	3.8	2.5	2.9	11.1	3.9	7.2	1.3	4.2	9.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	34.6	35.9	57.4	34.4	52.5	55.9	28.8	24.2	55.6	29.9	25.1
LnGrp LOS	E	C	D	E	C	D	E	C	C	E	C	C
Approach Vol, veh/h		540			890			1293			1574	
Approach Delay, s/veh		41.0			45.8			34.0			34.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	52.5	12.3	39.4	17.1	51.9	13.2	38.5
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	10.8	23.8	6.7	26.8	11.4	19.5	7.6	11.7
Green Ext Time (p_c), s	0.2	22.9	0.1	6.6	0.2	18.0	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	37.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:05	3:05	3:05	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	14090	14110	14194	14186	14044	14259	14197
Vehs Exited	14046	14150	14148	14138	13977	14268	14156
Starting Vehs	377	393	377	379	374	405	394
Ending Vehs	421	353	423	427	441	396	435
Travel Distance (mi)	7458	7519	7517	7524	7451	7580	7496
Travel Time (hr)	417.0	423.1	415.7	417.8	411.7	428.8	418.8
Total Delay (hr)	145.1	149.5	142.0	143.6	140.9	152.4	145.4
Total Stops	12461	12671	12428	12210	12248	13020	12601
Fuel Used (gal)	303.9	308.2	305.0	305.4	302.8	310.7	306.1

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	14084	14310	14063	14152
Vehs Exited	14080	14340	14058	14138
Starting Vehs	409	397	407	391
Ending Vehs	413	367	412	410
Travel Distance (mi)	7506	7620	7471	7514
Travel Time (hr)	423.1	427.3	417.2	420.1
Total Delay (hr)	149.6	149.3	144.6	146.2
Total Stops	12706	12671	12454	12544
Fuel Used (gal)	306.3	311.4	304.9	306.5

Interval #0 Information Seeding

Start Time	3:05
End Time	3:15
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3386	3562	3508	3445	3358	3434	3471
Vehs Exited	3358	3515	3505	3445	3323	3453	3416
Starting Vehs	377	393	377	379	374	405	394
Ending Vehs	405	440	380	379	409	386	449
Travel Distance (mi)	1794	1897	1867	1827	1763	1831	1831
Travel Time (hr)	100.1	107.6	103.3	97.5	96.7	100.6	99.7
Total Delay (hr)	34.8	38.6	35.5	31.1	32.5	33.8	33.0
Total Stops	3076	3218	3048	2829	2877	3059	3056
Fuel Used (gal)	73.2	78.2	75.7	73.3	71.5	74.8	73.9

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3435	3594	3456	3467
Vehs Exited	3435	3573	3468	3450
Starting Vehs	409	397	407	391
Ending Vehs	409	418	395	406
Travel Distance (mi)	1830	1902	1841	1838
Travel Time (hr)	100.8	104.8	100.5	101.2
Total Delay (hr)	34.1	35.4	33.3	34.2
Total Stops	2935	3165	2935	3021
Fuel Used (gal)	74.1	76.8	74.6	74.6

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3734	3631	3603	3743	3815	3799	3787
Vehs Exited	3715	3632	3549	3640	3748	3751	3731
Starting Vehs	405	440	380	379	409	386	449
Ending Vehs	424	439	434	482	476	434	505
Travel Distance (mi)	1968	1932	1896	1936	2014	2001	1980
Travel Time (hr)	112.7	108.2	105.1	107.8	113.6	117.4	114.6
Total Delay (hr)	41.0	37.8	36.1	37.0	40.3	44.2	42.5
Total Stops	3413	3200	3206	3049	3325	3563	3462
Fuel Used (gal)	80.8	78.8	77.0	78.3	82.2	82.9	81.9

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3702	3819	3842	3747
Vehs Exited	3652	3789	3735	3695
Starting Vehs	409	418	395	406
Ending Vehs	459	448	502	461
Travel Distance (mi)	1966	2033	2008	1973
Travel Time (hr)	113.7	117.6	118.6	112.9
Total Delay (hr)	42.1	43.7	45.4	41.0
Total Stops	3447	3397	3638	3365
Fuel Used (gal)	80.9	84.4	83.5	81.1

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3437	3496	3547	3478	3451	3476	3395
Vehs Exited	3467	3451	3555	3546	3503	3455	3458
Starting Vehs	424	439	434	482	476	434	505
Ending Vehs	394	484	426	414	424	455	442
Travel Distance (mi)	1829	1847	1888	1879	1873	1847	1806
Travel Time (hr)	100.6	105.4	105.1	107.1	103.3	102.9	99.0
Total Delay (hr)	33.8	38.0	36.2	38.6	35.3	35.7	33.1
Total Stops	2978	3161	3111	3199	3120	3169	2879
Fuel Used (gal)	74.3	76.0	76.6	77.3	76.2	74.9	73.4

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3477	3380	3330	3446
Vehs Exited	3507	3408	3454	3480
Starting Vehs	459	448	502	461
Ending Vehs	429	420	378	426
Travel Distance (mi)	1850	1803	1812	1844
Travel Time (hr)	101.4	99.0	97.8	102.1
Total Delay (hr)	34.1	32.9	31.7	35.0
Total Stops	2977	2935	2844	3038
Fuel Used (gal)	74.7	72.7	73.1	74.9

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3533	3421	3536	3520	3420	3550	3544
Vehs Exited	3506	3552	3539	3507	3403	3609	3551
Starting Vehs	394	484	426	414	424	455	442
Ending Vehs	421	353	423	427	441	396	435
Travel Distance (mi)	1867	1842	1867	1881	1801	1900	1879
Travel Time (hr)	103.6	101.9	102.3	105.5	98.1	108.0	105.5
Total Delay (hr)	35.5	35.0	34.3	36.8	32.8	38.7	36.8
Total Stops	2994	3092	3063	3133	2926	3229	3204
Fuel Used (gal)	75.5	75.2	75.8	76.5	72.9	78.1	76.8

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3470	3517	3435	3495
Vehs Exited	3486	3570	3401	3512
Starting Vehs	429	420	378	426
Ending Vehs	413	367	412	410
Travel Distance (mi)	1860	1882	1810	1859
Travel Time (hr)	107.4	106.0	100.3	103.9
Total Delay (hr)	39.3	37.2	34.2	36.1
Total Stops	3347	3174	3037	3116
Fuel Used (gal)	76.7	77.5	73.6	75.9

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	15.8	1.5	7.8	4.9	29.9
Total Del/Veh (s)	39.7	12.3	14.8	12.9	21.0
Stop Delay (hr)	13.3	1.3	5.8	3.6	24.0
Stop Del/Veh (s)	33.4	11.1	11.1	9.4	16.9

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	2.3	3.3	9.0	3.5	18.1
Total Del/Veh (s)	25.5	26.3	11.9	8.2	13.0
Stop Delay (hr)	2.0	2.9	4.5	2.0	11.3
Stop Del/Veh (s)	21.8	23.1	5.9	4.7	8.1

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.9	0.1	0.3	2.4	0.4	0.5	0.0	0.0	0.0
Total Delay (hr)	5.1	0.7	0.1	0.7	1.4	4.0	0.9	9.9	0.3	6.1	7.6	0.7
Total Del/Veh (s)	61.3	42.5	11.6	65.2	52.3	23.2	68.4	29.4	29.6	61.2	22.5	8.2
Stop Delay (hr)	4.8	0.6	0.1	0.7	1.2	3.5	0.8	7.7	0.3	5.6	5.7	0.4
Stop Del/Veh (s)	57.0	38.6	11.5	61.7	45.6	20.0	63.6	22.8	24.8	55.6	16.9	4.5

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.2
Total Delay (hr)	37.5
Total Del/Veh (s)	31.3
Stop Delay (hr)	31.2
Stop Del/Veh (s)	26.0

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay (hr)	5.9	0.6	1.7	1.0	11.8	0.0	4.4	25.4
Total Del/Veh (s)	35.1	27.2	8.8	8.8	19.9	20.7	14.0	18.1
Stop Delay (hr)	5.3	0.6	1.1	0.7	7.7	0.0	3.7	19.1
Stop Del/Veh (s)	31.6	25.6	5.8	6.3	13.0	14.5	11.6	13.6

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.2	0.0	0.0	0.1
Total Delay (hr)	3.8	1.2	1.6	0.9	7.4
Total Del/Veh (s)	36.0	12.7	4.0	3.5	8.9
Stop Delay (hr)	3.5	1.0	0.9	0.5	5.8
Stop Del/Veh (s)	33.1	10.5	2.3	1.9	7.0

Queuing and Blocking Report

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	384	409	411	132	131	300	274	274	83	261	268	228
Average Queue (ft)	259	277	286	65	69	272	164	145	18	153	149	137
95th Queue (ft)	345	363	374	110	112	318	257	243	58	233	233	215
Link Distance (ft)	1013	1013	1013	1013		54	54	54	54	204	204	204
Upstream Blk Time (%)						35	29	28	3	1	1	1
Queuing Penalty (veh)						165	137	133	15	6	5	3
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	153	160	188	188	346	348	370	187	208	219
Average Queue (ft)	65	88	101	99	204	210	208	94	106	117
95th Queue (ft)	120	135	164	160	316	327	327	152	169	186
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					3	3	4			
Queuing Penalty (veh)					27	29	33			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Queuing and Blocking Report

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	L	T	TR	R	L	L
Maximum Queue (ft)	234	258	225	54	86	19	83	157	275	245	46	167
Average Queue (ft)	111	156	35	16	21	1	32	63	154	142	7	54
95th Queue (ft)	211	241	142	42	56	9	72	123	231	223	31	131
Link Distance (ft)			411	411				351	351	351		
Upstream Blk Time (%)			0						0			
Queuing Penalty (veh)			0						0			
Storage Bay Dist (ft)	263	263			167	237	237				143	143
Storage Blk Time (%)	0	1	0									0
Queuing Penalty (veh)	0	0	0									0

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	345	383	410	217	236	268	291	298	144
Average Queue (ft)	195	238	267	126	139	128	146	157	43
95th Queue (ft)	302	348	386	192	208	227	244	253	108
Link Distance (ft)	391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)	0	0	1						
Queuing Penalty (veh)	0	0	0						
Storage Bay Dist (ft)									
Storage Blk Time (%)	15								
Queuing Penalty (veh)	7								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	EB	EB	EB	EB	EB	EB	B14	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	R	T	R	R	T	T	T
Maximum Queue (ft)	287	362	69	239	289	240	12	169	164	338	380	439
Average Queue (ft)	120	208	26	28	126	47	0	80	56	159	199	221
95th Queue (ft)	214	314	58	142	284	192	10	152	125	282	332	364
Link Distance (ft)	440	440	440	440			1753	568	568	488	488	488
Upstream Blk Time (%)		0		0							0	0
Queuing Penalty (veh)		0		0							0	0
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)					5	0						
Queuing Penalty (veh)					2	0						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	NB	SB	SB	SB
Directions Served	TR	T	T	T
Maximum Queue (ft)	447	185	174	168
Average Queue (ft)	249	131	115	119
95th Queue (ft)	399	199	184	188
Link Distance (ft)	488	50	50	50
Upstream Blk Time (%)	0	27	27	26
Queuing Penalty (veh)	0	100	100	97
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	133	164	186	155	187	176	144	172	153
Average Queue (ft)	61	87	108	71	79	78	68	67	64
95th Queue (ft)	106	134	161	124	154	148	127	130	128
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					3	2	1	0	0
Queuing Penalty (veh)					13	9	6	2	2
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)	0	0	0	0					
Queuing Penalty (veh)	0	0	0	0					

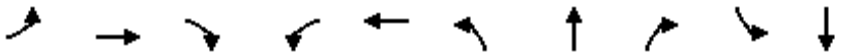
Appendix D

Analysis Worksheets for Cumulative Conditions

Queues

1: White Rock Rd & Kilgore Rd

05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	98	402	22	120	717	87	109	152	76	163
v/c Ratio	0.44	0.49	0.05	0.48	0.62	0.38	0.45	0.45	0.38	0.41
Control Delay	31.5	21.9	0.2	30.8	22.2	29.4	30.8	10.2	31.4	25.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	21.9	0.2	30.8	22.2	29.4	30.8	10.2	31.4	25.2
Queue Length 50th (ft)	30	58	0	36	74	26	33	0	23	22
Queue Length 95th (ft)	83	120	0	95	135	74	89	47	69	57
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	819	3516	1573	1147	5004	1311	1380	1212	1311	2523
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.11	0.01	0.10	0.14	0.07	0.08	0.13	0.06	0.06

Intersection Summary

HCM 6th Signalized Intersection Summary
1: White Rock Rd & Kilgore Rd 05/26/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	370	20	110	590	70	80	100	140	70	110	40
Future Volume (veh/h)	90	370	20	110	590	70	80	100	140	70	110	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	402	22	120	641	76	87	109	152	76	120	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	682	304	153	921	108	246	258	219	161	234	81
Arrive On Green	0.07	0.19	0.19	0.09	0.20	0.20	0.14	0.14	0.14	0.09	0.09	0.09
Sat Flow, veh/h	1781	3554	1585	1781	4633	544	1781	1870	1585	1781	2595	892
Grp Volume(v), veh/h	98	402	22	120	469	248	87	109	152	76	81	82
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1772	1781	1870	1585	1781	1777	1710
Q Serve(g_s), s	2.3	4.4	0.5	2.8	5.5	5.6	1.9	2.3	3.9	1.7	1.9	2.0
Cycle Q Clear(g_c), s	2.3	4.4	0.5	2.8	5.5	5.6	1.9	2.3	3.9	1.7	1.9	2.0
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	124	682	304	153	677	353	246	258	219	161	161	155
V/C Ratio(X)	0.79	0.59	0.07	0.78	0.69	0.70	0.35	0.42	0.70	0.47	0.50	0.53
Avail Cap(c_a), veh/h	1037	5794	2584	1452	5550	2890	1660	1743	1477	1660	1655	1593
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.7	15.8	14.2	19.2	16.0	16.0	16.8	16.9	17.6	18.6	18.6	18.7
Incr Delay (d2), s/veh	4.1	0.3	0.0	3.3	0.5	1.0	0.3	0.4	1.5	0.8	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.6	0.2	1.2	1.9	2.0	0.7	0.9	1.3	0.7	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	16.1	14.3	22.5	16.5	17.0	17.1	17.3	19.1	19.4	19.5	19.7
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		522			837			348			239	
Approach Delay, s/veh		17.5			17.5			18.1			19.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	13.7		9.4	8.8	13.4		11.3				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	4.3	7.6		4.0	4.8	6.4		5.9				
Green Ext Time (p_c), s	0.0	1.0		0.1	0.0	0.6		0.1				

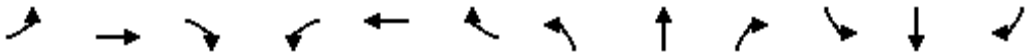
Intersection Summary			
HCM 6th Ctrl Delay		17.8	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

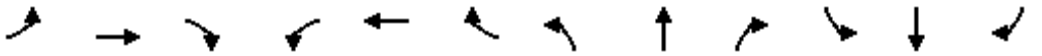
2: White Rock Rd & Sunrise Blvd 05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	250	217	141	87	293	130	424	870	76	261	870	152
v/c Ratio	0.64	0.29	0.32	0.41	0.36	0.36	0.70	0.44	0.11	0.65	0.52	0.25
Control Delay	56.1	39.0	8.8	59.8	44.0	11.2	50.1	25.1	4.7	55.8	30.7	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.1	39.0	8.8	59.8	44.0	11.2	50.1	25.1	4.7	55.8	30.7	9.1
Queue Length 50th (ft)	84	65	0	29	65	0	139	154	0	88	173	14
Queue Length 95th (ft)	156	124	56	68	118	58	243	239	27	162	261	66
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	829	1367	698	829	1975	694	829	3449	1100	829	3439	1110
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.16	0.20	0.10	0.15	0.19	0.51	0.25	0.07	0.31	0.25	0.14

Intersection Summary

HCM 6th Signalized Intersection Summary
2: White Rock Rd & Sunrise Blvd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	200	130	80	270	120	390	800	70	240	800	140
Future Volume (veh/h)	230	200	130	80	270	120	390	800	70	240	800	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	250	217	141	87	293	130	424	870	76	261	870	152
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	326	771	344	145	842	261	500	2007	623	337	1766	548
Arrive On Green	0.09	0.22	0.22	0.04	0.16	0.16	0.14	0.39	0.39	0.10	0.35	0.35
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	250	217	141	87	293	130	424	870	76	261	870	152
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	6.4	4.6	7.0	2.3	4.6	6.8	10.9	11.3	2.8	6.7	12.2	6.3
Cycle Q Clear(g_c), s	6.4	4.6	7.0	2.3	4.6	6.8	10.9	11.3	2.8	6.7	12.2	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	326	771	344	145	842	261	500	2007	623	337	1766	548
V/C Ratio(X)	0.77	0.28	0.41	0.60	0.35	0.50	0.85	0.43	0.12	0.78	0.49	0.28
Avail Cap(c_a), veh/h	949	1562	697	949	2244	697	949	3927	1219	949	3927	1219
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	29.7	30.6	42.8	33.7	34.6	38.0	20.2	17.6	40.1	23.5	21.5
Incr Delay (d2), s/veh	1.4	0.1	0.3	1.5	0.8	5.0	1.6	0.3	0.2	1.5	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.0	2.6	1.0	2.0	2.9	4.6	4.4	1.0	2.9	4.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	29.8	30.9	44.3	34.5	39.5	39.5	20.5	17.8	41.6	23.9	22.1
LnGrp LOS	D	C	C	D	C	D	D	C	B	D	C	C
Approach Vol, veh/h		608			510			1370			1283	
Approach Delay, s/veh		34.9			37.5			26.2			27.3	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.7	37.3	14.1	21.0	14.4	41.6	9.3	25.8
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	12.9	14.2	8.4	8.8	8.7	13.3	4.3	9.0
Green Ext Time (p_c), s	0.3	17.2	0.2	6.2	0.2	16.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	13083	13230	13264	13153	13220	13221	13239
Vehs Exited	13105	13327	13217	13151	13202	13240	13232
Starting Vehs	412	441	356	444	424	364	420
Ending Vehs	390	344	403	446	442	345	427
Travel Distance (mi)	6977	7064	7030	7029	7046	7063	7038
Travel Time (hr)	405.7	403.1	407.6	406.1	423.9	399.3	398.5
Total Delay (hr)	151.8	146.1	152.3	149.9	167.6	142.2	142.8
Total Stops	12769	12666	13155	12805	14202	12451	12546
Fuel Used (gal)	287.3	290.0	290.3	290.1	294.1	288.4	287.8

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	12838	13130	13019	13137
Vehs Exited	12821	13092	13082	13146
Starting Vehs	403	387	414	408
Ending Vehs	420	425	351	397
Travel Distance (mi)	6846	6990	6923	7001
Travel Time (hr)	386.9	405.9	390.0	402.7
Total Delay (hr)	138.2	151.9	138.0	148.1
Total Stops	12119	13173	12140	12801
Fuel Used (gal)	279.3	289.2	282.1	287.9

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3185	3242	3253	3141	3187	3204	3247
Vehs Exited	3266	3317	3230	3251	3216	3202	3283
Starting Vehs	412	441	356	444	424	364	420
Ending Vehs	331	366	379	334	395	366	384
Travel Distance (mi)	1715	1733	1734	1706	1702	1707	1740
Travel Time (hr)	97.0	98.4	101.6	97.6	98.0	94.4	94.9
Total Delay (hr)	34.5	35.2	38.7	35.4	36.3	32.3	31.8
Total Stops	2982	3116	3299	3145	3295	2907	2878
Fuel Used (gal)	70.2	71.4	72.0	70.4	69.9	68.9	70.3

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3227	3210	3215	3208
Vehs Exited	3241	3183	3236	3242
Starting Vehs	403	387	414	408
Ending Vehs	389	414	393	377
Travel Distance (mi)	1739	1700	1723	1720
Travel Time (hr)	97.8	99.0	97.3	97.6
Total Delay (hr)	34.7	37.0	34.8	35.1
Total Stops	2982	3157	2998	3075
Fuel Used (gal)	70.7	70.3	69.8	70.4

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3533	3567	3389	3508	3511	3510	3489
Vehs Exited	3424	3514	3360	3408	3422	3466	3446
Starting Vehs	331	366	379	334	395	366	384
Ending Vehs	440	419	408	434	484	410	427
Travel Distance (mi)	1845	1911	1783	1843	1850	1862	1840
Travel Time (hr)	110.9	111.9	103.0	109.7	114.6	105.8	104.1
Total Delay (hr)	43.6	42.5	38.3	42.6	47.5	38.1	37.2
Total Stops	3604	3501	3330	3507	3816	3262	3269
Fuel Used (gal)	76.7	79.3	73.1	76.5	78.2	76.0	75.2

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3305	3403	3418	3462
Vehs Exited	3299	3374	3380	3407
Starting Vehs	389	414	393	377
Ending Vehs	395	443	431	426
Travel Distance (mi)	1764	1801	1804	1830
Travel Time (hr)	105.8	104.2	102.4	107.3
Total Delay (hr)	41.9	38.9	36.6	40.7
Total Stops	3466	3389	3185	3430
Fuel Used (gal)	73.7	74.6	73.9	75.7

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3178	3180	3334	3203	3250	3293	3302
Vehs Exited	3221	3244	3315	3275	3323	3302	3291
Starting Vehs	440	419	408	434	484	410	427
Ending Vehs	397	355	427	362	411	401	438
Travel Distance (mi)	1726	1719	1770	1740	1756	1751	1759
Travel Time (hr)	101.9	97.1	104.4	98.9	107.4	101.4	99.6
Total Delay (hr)	39.4	34.3	40.0	35.6	43.4	37.6	35.4
Total Stops	3232	2999	3505	3022	3713	3351	3157
Fuel Used (gal)	71.5	69.9	73.5	71.8	74.2	72.3	72.1

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3155	3193	3264	3234
Vehs Exited	3230	3250	3289	3274
Starting Vehs	395	443	431	426
Ending Vehs	320	386	406	386
Travel Distance (mi)	1696	1722	1733	1737
Travel Time (hr)	92.4	100.7	98.4	100.2
Total Delay (hr)	30.7	38.2	35.2	37.0
Total Stops	2826	3396	3101	3230
Fuel Used (gal)	68.5	71.5	70.9	71.6

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3187	3241	3288	3301	3272	3214	3201
Vehs Exited	3194	3252	3312	3217	3241	3270	3212
Starting Vehs	397	355	427	362	411	401	438
Ending Vehs	390	344	403	446	442	345	427
Travel Distance (mi)	1691	1701	1743	1740	1737	1743	1699
Travel Time (hr)	95.9	95.8	98.6	99.9	103.9	97.6	99.9
Total Delay (hr)	34.4	34.1	35.3	36.3	40.4	34.2	38.3
Total Stops	2951	3050	3021	3131	3378	2931	3242
Fuel Used (gal)	69.0	69.4	71.7	71.3	71.8	71.2	70.2

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3151	3324	3122	3227
Vehs Exited	3051	3285	3177	3222
Starting Vehs	320	386	406	386
Ending Vehs	420	425	351	397
Travel Distance (mi)	1648	1767	1663	1713
Travel Time (hr)	90.9	102.0	91.8	97.6
Total Delay (hr)	31.0	37.8	31.5	35.3
Total Stops	2845	3231	2856	3060
Fuel Used (gal)	66.4	72.9	67.4	70.1

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	11.6	3.6	3.9	4.5	23.5
Total Del/Veh (s)	36.3	18.1	11.4	11.6	18.9
Stop Delay (hr)	10.0	3.2	2.9	3.2	19.3
Stop Del/Veh (s)	31.4	15.9	8.7	8.1	15.5

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	1.7	2.0	5.4	3.7	12.8
Total Del/Veh (s)	16.7	16.5	9.8	9.0	10.8
Stop Delay (hr)	1.4	1.7	2.8	2.0	7.9
Stop Del/Veh (s)	13.1	13.9	5.1	5.0	6.7

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	3.1	0.1	0.2	2.9	1.0	1.1	0.0	0.0	0.0
Total Delay (hr)	4.4	1.1	0.1	1.0	1.1	3.0	0.7	11.9	1.3	9.8	8.1	0.8
Total Del/Veh (s)	60.4	45.2	14.5	64.6	59.3	21.8	74.8	35.6	39.0	64.8	19.8	7.8
Stop Delay (hr)	4.1	1.0	0.1	1.0	1.0	2.6	0.6	9.1	1.0	8.8	5.7	0.4
Stop Del/Veh (s)	56.4	41.0	14.4	61.0	52.8	19.2	70.1	27.3	32.3	57.9	14.0	3.6

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.4
Total Delay (hr)	43.2
Total Del/Veh (s)	32.9
Stop Delay (hr)	35.4
Stop Del/Veh (s)	27.0

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	2.8	2.8	6.5	0.1	11.5	0.1	6.4	30.3
Total Del/Veh (s)	31.6	29.1	25.8	2.8	21.2	27.0	17.0	21.7
Stop Delay (hr)	2.6	2.6	5.1	0.0	7.7	0.1	5.4	23.6
Stop Del/Veh (s)	29.2	26.5	20.4	1.4	14.2	20.8	14.3	16.9

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.2	0.0	0.0	0.1
Total Delay (hr)	6.8	0.5	1.3	1.3	9.9
Total Del/Veh (s)	36.6	9.7	5.1	5.2	13.3
Stop Delay (hr)	6.1	0.3	0.9	0.8	8.1
Stop Del/Veh (s)	32.8	6.8	3.5	3.3	10.9

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	B33	NB	NB	NB	NB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	281	293	308	207	213	118	289	180	151	45	273	260
Average Queue (ft)	200	216	223	115	121	4	214	79	66	6	150	143
95th Queue (ft)	265	282	294	182	190	86	303	141	123	27	236	229
Link Distance (ft)	1013	1013	1013	1013		611	54	54	54	54	204	204
Upstream Blk Time (%)						0	30	17	13	0	1	1
Queuing Penalty (veh)						0	91	52	40	1	7	4
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	SB
Directions Served	T
Maximum Queue (ft)	223
Average Queue (ft)	133
95th Queue (ft)	210
Link Distance (ft)	204
Upstream Blk Time (%)	1
Queuing Penalty (veh)	3
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	114	140	160	148	244	243	255	165	179	202
Average Queue (ft)	54	77	71	73	140	140	143	87	101	115
95th Queue (ft)	94	119	120	119	213	216	223	138	154	175
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					0	0	0			
Queuing Penalty (veh)					1	1	2			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Queuing and Blocking Report

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	L	T	TR	R	L	L
Maximum Queue (ft)	234	248	204	66	71	84	93	120	208	199	28	168
Average Queue (ft)	90	148	38	23	21	5	45	49	123	108	2	52
95th Queue (ft)	196	227	127	53	51	40	87	98	186	190	16	140
Link Distance (ft)			411	411				351	351	351		
Upstream Blk Time (%)			0									
Queuing Penalty (veh)			0									
Storage Bay Dist (ft)	263	263			167	237	237				143	143
Storage Blk Time (%)	0	1	0									0
Queuing Penalty (veh)	0	0	0									1

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	347	397	420	309	321	284	305	313	138
Average Queue (ft)	200	287	337	198	212	137	157	168	41
95th Queue (ft)	314	404	457	282	295	250	268	274	102
Link Distance (ft)	391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)	0	0	8						
Queuing Penalty (veh)	0	0	0						
Storage Bay Dist (ft)									
Storage Blk Time (%)	15								
Queuing Penalty (veh)	5								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

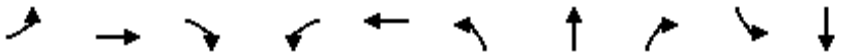
Movement	EB	EB	EB	EB	EB	EB	B14	B14	WB	WB	NB	NB
Directions Served	L	L	T	T	R	R	T	T	R	R	T	T
Maximum Queue (ft)	123	213	171	524	300	250	789	1105	79	66	286	335
Average Queue (ft)	45	114	94	321	265	187	115	234	13	9	138	181
95th Queue (ft)	99	191	149	622	368	357	643	884	55	42	251	305
Link Distance (ft)	440	440	440	440			1753	1753	568	568	488	488
Upstream Blk Time (%)				10			0	0				
Queuing Penalty (veh)				0			0	0				
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)				0	35	2						
Queuing Penalty (veh)				0	61	3						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	NB	NB	SB	SB	SB
Directions Served	T	TR	T	T	T
Maximum Queue (ft)	402	438	193	186	161
Average Queue (ft)	208	260	163	146	141
95th Queue (ft)	335	412	212	202	190
Link Distance (ft)	488	488	50	50	50
Upstream Blk Time (%)	0	0	34	33	33
Queuing Penalty (veh)	0	1	151	147	149
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	179	210	268	210	178	176	136	177	184
Average Queue (ft)	106	132	162	73	67	68	57	90	89
95th Queue (ft)	164	191	231	176	145	146	120	154	160
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					3	2	1	1	1
Queuing Penalty (veh)					8	7	4	5	6
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)	0	0	4	0					
Queuing Penalty (veh)	0	1	3	0					



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	76	717	43	239	565	76	109	217	43	206
v/c Ratio	0.46	0.71	0.08	0.63	0.26	0.37	0.50	0.58	0.24	0.54
Control Delay	47.0	30.1	0.3	37.7	15.5	41.5	45.0	12.6	41.0	33.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.0	30.1	0.3	37.7	15.5	41.5	45.0	12.6	41.0	33.0
Queue Length 50th (ft)	35	157	0	103	61	34	49	0	19	36
Queue Length 95th (ft)	95	285	0	222	110	93	123	67	61	89
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	599	3095	1397	838	4614	958	1008	956	958	1835
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.23	0.03	0.29	0.12	0.08	0.11	0.23	0.04	0.11

Intersection Summary

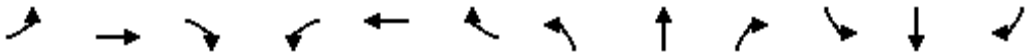
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	660	40	220	440	80	70	100	200	40	120	70
Future Volume (veh/h)	70	660	40	220	440	80	70	100	200	40	120	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	717	43	239	478	87	76	109	217	43	130	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	855	381	286	1483	264	295	310	263	168	208	115
Arrive On Green	0.05	0.24	0.24	0.16	0.34	0.34	0.17	0.17	0.17	0.09	0.09	0.09
Sat Flow, veh/h	1781	3554	1585	1781	4359	776	1781	1870	1585	1781	2211	1217
Grp Volume(v), veh/h	76	717	43	239	371	194	76	109	217	43	103	103
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1731	1781	1870	1585	1781	1777	1651
Q Serve(g_s), s	2.6	12.0	1.3	8.1	5.0	5.2	2.3	3.2	8.3	1.4	3.5	3.8
Cycle Q Clear(g_c), s	2.6	12.0	1.3	8.1	5.0	5.2	2.3	3.2	8.3	1.4	3.5	3.8
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		0.74
Lane Grp Cap(c), veh/h	97	855	381	286	1158	589	295	310	263	168	168	156
V/C Ratio(X)	0.78	0.84	0.11	0.84	0.32	0.33	0.26	0.35	0.83	0.26	0.61	0.66
Avail Cap(c_a), veh/h	712	3977	1774	997	3810	1937	1139	1196	1014	1139	1136	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	22.6	18.5	25.5	15.3	15.3	22.7	23.1	25.2	26.3	27.2	27.4
Incr Delay (d2), s/veh	5.1	0.9	0.0	2.5	0.1	0.1	0.2	0.3	2.5	0.3	1.4	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.7	0.5	3.4	1.8	1.9	0.9	1.4	3.1	0.6	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	23.5	18.6	28.0	15.3	15.5	22.9	23.4	27.7	26.6	28.6	29.2
LnGrp LOS	C	C	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		836			804			402			249	
Approach Delay, s/veh		24.2			19.1			25.6			28.5	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	26.5		11.4	15.1	20.3		15.8				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	4.6	7.2		5.8	10.1	14.0		10.3				
Green Ext Time (p_c), s	0.0	0.7		0.2	0.1	1.0		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		23.1
HCM 6th LOS		C

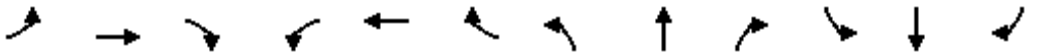
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	228	413	370	152	348	337	337	1011	65	261	1120	228
v/c Ratio	0.67	0.56	0.66	0.59	0.37	0.66	0.75	0.47	0.09	0.70	0.55	0.32
Control Delay	71.5	51.9	18.2	73.9	50.2	19.0	69.3	28.7	3.2	70.8	32.2	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.5	51.9	18.2	73.9	50.2	19.0	69.3	28.7	3.2	70.8	32.2	12.6
Queue Length 50th (ft)	96	166	56	64	95	49	142	214	0	110	256	44
Queue Length 95th (ft)	181	274	194	130	160	179	253	354	20	203	415	135
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	686	1147	710	686	1634	692	686	2875	931	686	2846	948
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.36	0.52	0.22	0.21	0.49	0.49	0.35	0.07	0.38	0.39	0.24

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	380	340	140	320	310	310	930	60	240	1030	210
Future Volume (veh/h)	210	380	340	140	320	310	310	930	60	240	1030	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	228	413	370	152	348	337	337	1011	65	261	1120	228
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	1004	448	204	1330	413	390	1999	621	314	1887	586
Arrive On Green	0.08	0.28	0.28	0.06	0.26	0.26	0.11	0.39	0.39	0.09	0.37	0.37
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	228	413	370	152	348	337	337	1011	65	261	1120	228
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	8.4	12.2	28.3	5.6	7.0	25.9	12.4	19.5	3.4	9.6	23.0	13.7
Cycle Q Clear(g_c), s	8.4	12.2	28.3	5.6	7.0	25.9	12.4	19.5	3.4	9.6	23.0	13.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	281	1004	448	204	1330	413	390	1999	621	314	1887	586
V/C Ratio(X)	0.81	0.41	0.83	0.74	0.26	0.82	0.86	0.51	0.10	0.83	0.59	0.39
Avail Cap(c_a), veh/h	666	1096	489	666	1575	489	666	2756	856	666	2756	856
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.6	37.8	43.5	60.0	38.1	45.0	56.5	29.9	25.0	58.0	33.0	30.1
Incr Delay (d2), s/veh	2.1	0.1	9.4	2.0	0.4	14.0	2.6	0.4	0.1	2.2	0.6	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	5.4	12.2	2.5	3.0	11.8	5.6	8.1	1.3	4.3	9.6	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.7	37.9	52.9	62.0	38.4	59.0	59.1	30.3	25.2	60.1	33.6	31.0
LnGrp LOS	E	D	D	E	D	E	E	C	C	E	C	C
Approach Vol, veh/h		1011			837			1413			1609	
Approach Delay, s/veh		48.5			51.0			37.0			37.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.1	53.7	16.1	39.8	17.3	56.6	13.2	42.6
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	14.4	25.0	10.4	27.9	11.6	21.5	7.6	30.3
Green Ext Time (p_c), s	0.2	23.0	0.1	5.9	0.2	18.7	0.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:05	3:05	3:05	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	15233	15176	15312	15005	14976	15117	15011
Vehs Exited	15191	15193	15301	14984	15003	15144	14956
Starting Vehs	417	421	455	461	427	449	397
Ending Vehs	459	404	466	482	400	422	452
Travel Distance (mi)	7897	7861	7947	7787	7783	7870	7808
Travel Time (hr)	477.5	460.7	494.0	498.9	463.1	471.4	461.1
Total Delay (hr)	189.6	175.0	204.9	215.4	179.6	184.6	177.3
Total Stops	14317	14008	14440	14162	13978	14135	14354
Fuel Used (gal)	332.6	327.9	338.3	334.9	326.6	330.6	326.4

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	15025	15250	15010	15112
Vehs Exited	15052	15228	14985	15105
Starting Vehs	432	432	451	433
Ending Vehs	405	454	476	442
Travel Distance (mi)	7825	7891	7792	7846
Travel Time (hr)	464.9	469.7	454.5	471.6
Total Delay (hr)	180.7	182.7	170.7	186.0
Total Stops	14077	14159	13992	14156
Fuel Used (gal)	327.3	332.2	324.2	330.1

Interval #0 Information Seeding

Start Time	3:05
End Time	3:15
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

SimTraffic Simulation Summary

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3740	3836	3644	3642	3648	3647	3698
Vehs Exited	3733	3805	3662	3703	3616	3665	3592
Starting Vehs	417	421	455	461	427	449	397
Ending Vehs	424	452	437	400	459	431	503
Travel Distance (mi)	1949	1996	1886	1912	1882	1922	1894
Travel Time (hr)	115.7	115.6	113.5	115.2	111.6	110.4	111.0
Total Delay (hr)	44.8	42.9	44.8	45.7	43.0	40.6	42.3
Total Stops	3500	3604	3425	3432	3439	3293	3573
Fuel Used (gal)	81.9	83.0	79.2	80.4	78.7	79.4	78.9

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3736	3751	3713	3704
Vehs Exited	3710	3751	3693	3693
Starting Vehs	432	432	451	433
Ending Vehs	458	432	471	444
Travel Distance (mi)	1943	1947	1933	1926
Travel Time (hr)	116.0	111.8	114.8	113.6
Total Delay (hr)	45.7	41.0	44.5	43.5
Total Stops	3486	3452	3666	3485
Fuel Used (gal)	81.1	80.9	80.7	80.4

SimTraffic Simulation Summary

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3973	3970	4005	3852	4052	4028	3966
Vehs Exited	3924	3936	3933	3745	3990	3981	3952
Starting Vehs	424	452	437	400	459	431	503
Ending Vehs	473	486	509	507	521	478	517
Travel Distance (mi)	2031	2020	2068	1986	2087	2073	2046
Travel Time (hr)	129.0	122.1	128.0	126.5	124.3	128.5	122.0
Total Delay (hr)	55.0	48.6	52.8	54.2	48.6	53.0	47.6
Total Stops	3747	3670	3770	3744	3760	3844	3694
Fuel Used (gal)	87.3	85.3	88.2	85.3	87.7	88.3	86.0

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3930	4031	3958	3975
Vehs Exited	3860	3937	3851	3910
Starting Vehs	458	432	471	444
Ending Vehs	528	526	578	513
Travel Distance (mi)	2013	2062	2028	2042
Travel Time (hr)	124.5	125.8	119.7	125.1
Total Delay (hr)	51.4	50.9	45.8	50.8
Total Stops	3804	3813	3661	3750
Fuel Used (gal)	85.7	87.4	84.8	86.6

SimTraffic Simulation Summary

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3777	3764	3815	3728	3624	3747	3661
Vehs Exited	3757	3781	3840	3778	3711	3809	3670
Starting Vehs	473	486	509	507	521	478	517
Ending Vehs	493	469	484	457	434	416	508
Travel Distance (mi)	1977	1963	1989	1947	1921	1946	1931
Travel Time (hr)	120.3	114.5	126.1	128.7	116.9	119.0	112.9
Total Delay (hr)	48.1	43.1	53.7	58.0	46.7	47.9	42.7
Total Stops	3730	3372	3583	3527	3442	3415	3477
Fuel Used (gal)	83.2	81.6	85.1	85.1	81.1	82.1	80.3

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3699	3684	3651	3713
Vehs Exited	3774	3740	3798	3764
Starting Vehs	528	526	578	513
Ending Vehs	453	470	431	463
Travel Distance (mi)	1956	1940	1938	1951
Travel Time (hr)	114.1	117.5	113.2	118.3
Total Delay (hr)	43.1	46.9	42.7	47.3
Total Stops	3429	3512	3393	3489
Fuel Used (gal)	81.3	82.3	80.9	82.3

SimTraffic Simulation Summary

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3743	3606	3848	3783	3652	3695	3686
Vehs Exited	3777	3671	3866	3758	3686	3689	3742
Starting Vehs	493	469	484	457	434	416	508
Ending Vehs	459	404	466	482	400	422	452
Travel Distance (mi)	1940	1882	2004	1942	1894	1929	1936
Travel Time (hr)	112.5	108.6	126.4	128.4	110.3	113.4	115.2
Total Delay (hr)	41.6	40.4	53.6	57.5	41.3	43.1	44.7
Total Stops	3340	3362	3662	3459	3337	3583	3610
Fuel Used (gal)	80.3	78.1	85.8	84.0	79.0	80.8	81.1

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3660	3784	3688	3714
Vehs Exited	3708	3800	3643	3733
Starting Vehs	453	470	431	463
Ending Vehs	405	454	476	442
Travel Distance (mi)	1913	1941	1893	1927
Travel Time (hr)	110.4	114.6	106.7	114.6
Total Delay (hr)	40.5	43.8	37.7	44.4
Total Stops	3358	3382	3272	3431
Fuel Used (gal)	79.2	81.6	77.7	80.7

SimTraffic Performance Report

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	14.6	2.6	7.4	4.7	29.3
Total Del/Veh (s)	38.6	14.7	14.2	13.0	20.4
Stop Delay (hr)	12.3	2.3	5.5	3.4	23.6
Stop Del/Veh (s)	32.5	13.0	10.6	9.5	16.4

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	2.1	3.2	8.4	3.3	17.0
Total Del/Veh (s)	24.2	24.8	11.6	8.2	12.6
Stop Delay (hr)	1.8	2.8	4.3	1.8	10.7
Stop Del/Veh (s)	20.7	21.7	5.9	4.6	8.0

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.2	6.0	0.2	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.9	0.2	0.3	14.7	13.6	15.5	0.0	0.0	0.0
Total Delay (hr)	5.6	1.0	0.1	2.3	1.9	4.3	1.2	23.2	0.7	12.0	8.5	0.7
Total Del/Veh (s)	67.6	52.0	15.0	64.5	56.8	27.2	86.4	52.5	50.3	74.0	23.2	8.3
Stop Delay (hr)	5.2	0.9	0.1	2.2	1.6	3.7	1.1	18.6	0.6	10.8	6.3	0.4
Stop Del/Veh (s)	63.3	47.7	14.8	60.1	49.7	23.9	79.5	42.2	41.9	66.4	17.1	4.5

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	6.5
Denied Del/Veh (s)	4.7
Total Delay (hr)	61.4
Total Del/Veh (s)	43.5
Stop Delay (hr)	51.5
Stop Del/Veh (s)	36.4

SimTraffic Performance Report

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay (hr)	5.6	0.8	3.2	1.0	15.2	0.1	6.2	32.0
Total Del/Veh (s)	34.0	25.6	14.9	9.2	22.5	21.3	16.1	20.2
Stop Delay (hr)	5.0	0.8	2.4	0.7	9.8	0.0	5.2	23.9
Stop Del/Veh (s)	30.6	24.0	11.1	6.6	14.5	14.6	13.4	15.1

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.4	0.3	0.0	0.0	0.1
Total Delay (hr)	5.1	1.4	2.0	1.6	10.1
Total Del/Veh (s)	36.4	14.5	4.9	5.0	10.4
Stop Delay (hr)	4.6	1.2	1.2	0.9	7.9
Stop Del/Veh (s)	33.0	11.9	3.0	2.8	8.1

Queuing and Blocking Report

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	B33	NB	NB	NB	NB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	365	382	390	167	178	124	298	259	272	76	253	235
Average Queue (ft)	247	264	274	93	96	4	267	147	146	21	150	141
95th Queue (ft)	331	353	363	143	151	91	319	234	239	59	227	214
Link Distance (ft)	1013	1013	1013	1013		611	54	54	54	54	204	204
Upstream Blk Time (%)						0	34	28	27	2	2	1
Queuing Penalty (veh)						0	159	129	126	12	7	3
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	SB
Directions Served	T
Maximum Queue (ft)	220
Average Queue (ft)	133
95th Queue (ft)	208
Link Distance (ft)	204
Upstream Blk Time (%)	1
Queuing Penalty (veh)	2
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	129	154	179	179	347	365	349	157	179	191
Average Queue (ft)	58	84	96	97	198	199	198	89	99	112
95th Queue (ft)	106	131	155	153	306	308	312	139	154	173
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					3	3	3			
Queuing Penalty (veh)					24	22	26			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Queuing and Blocking Report

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	B32	WB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	TR	T	L	L	T	TR	R	L
Maximum Queue (ft)	259	269	245	59	74	19	134	142	192	269	263	82
Average Queue (ft)	120	163	43	22	22	1	37	83	86	167	155	12
95th Queue (ft)	224	247	164	50	54	21	116	131	165	245	234	47
Link Distance (ft)			411	411		267			351	351	351	
Upstream Blk Time (%)			1								0	
Queuing Penalty (veh)			0								0	
Storage Bay Dist (ft)	263	263			167		237	237				143
Storage Blk Time (%)	0	1	0						0			0
Queuing Penalty (veh)	0	0	1						0			0

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	L	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	168	408	415	430	383	390	338	325	320	153
Average Queue (ft)	81	337	365	392	236	250	150	166	174	41
95th Queue (ft)	182	443	450	462	347	355	280	282	282	106
Link Distance (ft)		391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)		5	10	31		0				
Queuing Penalty (veh)		0	0	0		0				
Storage Bay Dist (ft)	143									
Storage Blk Time (%)	0	41								
Queuing Penalty (veh)	2	21								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	EB	EB	EB	EB	EB	EB	B14	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	R	T	R	R	T	T	T
Maximum Queue (ft)	223	344	75	452	300	250	92	165	150	445	476	508
Average Queue (ft)	115	206	34	93	207	111	4	79	59	202	242	266
95th Queue (ft)	201	304	65	335	340	304	70	151	126	385	431	462
Link Distance (ft)	440	440	440	440			1753	568	568	488	488	488
Upstream Blk Time (%)				1						0	0	0
Queuing Penalty (veh)				0						0	0	1
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)					15	0						
Queuing Penalty (veh)					8	0						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	NB	SB	SB	SB
Directions Served	TR	T	T	T
Maximum Queue (ft)	496	200	177	172
Average Queue (ft)	293	163	140	138
95th Queue (ft)	481	215	199	190
Link Distance (ft)	488	50	50	50
Upstream Blk Time (%)	0	33	32	32
Queuing Penalty (veh)	2	154	147	150
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	169	190	206	182	189	187	161	238	182
Average Queue (ft)	86	105	126	80	92	94	79	106	92
95th Queue (ft)	138	156	183	141	172	175	143	194	164
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					5	4	2	2	2
Queuing Penalty (veh)					24	20	12	14	10
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)	0	0	1	0					
Queuing Penalty (veh)	0	0	1	0					

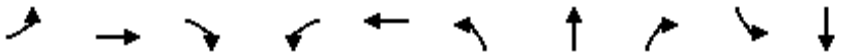
Appendix E

Analysis Worksheets for
Cumulative plus Proposed Project Conditions

Queues

1: White Rock Rd & Kilgore Rd

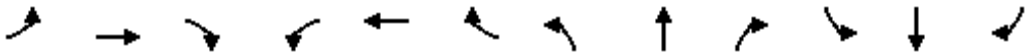
05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	98	402	47	142	717	138	109	198	76	163
v/c Ratio	0.45	0.53	0.11	0.52	0.62	0.51	0.38	0.48	0.39	0.41
Control Delay	33.3	24.3	1.4	32.1	23.2	32.1	28.7	9.1	33.4	26.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.3	24.3	1.4	32.1	23.2	32.1	28.7	9.1	33.4	26.7
Queue Length 50th (ft)	32	64	0	45	78	44	34	0	25	24
Queue Length 95th (ft)	87	130	5	114	144	111	90	52	73	61
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	783	3475	1556	1096	5004	1254	1319	1179	1254	2413
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.12	0.03	0.13	0.14	0.11	0.08	0.17	0.06	0.07

Intersection Summary

HCM 6th Signalized Intersection Summary
1: White Rock Rd & Kilgore Rd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	370	43	131	590	70	127	100	182	70	110	40
Future Volume (veh/h)	90	370	43	131	590	70	127	100	182	70	110	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	402	47	142	641	76	138	109	198	76	120	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	614	274	182	909	107	294	309	262	158	231	79
Arrive On Green	0.07	0.17	0.17	0.10	0.20	0.20	0.17	0.17	0.17	0.09	0.09	0.09
Sat Flow, veh/h	1781	3554	1585	1781	4633	544	1781	1870	1585	1781	2595	892
Grp Volume(v), veh/h	98	402	47	142	469	248	138	109	198	76	81	82
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1772	1781	1870	1585	1781	1777	1710
Q Serve(g_s), s	2.4	4.7	1.1	3.5	5.8	5.9	3.2	2.3	5.4	1.8	1.9	2.1
Cycle Q Clear(g_c), s	2.4	4.7	1.1	3.5	5.8	5.9	3.2	2.3	5.4	1.8	1.9	2.1
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	125	614	274	182	668	348	294	309	262	158	158	152
V/C Ratio(X)	0.79	0.65	0.17	0.78	0.70	0.71	0.47	0.35	0.76	0.48	0.51	0.54
Avail Cap(c_a), veh/h	989	5525	2465	1385	5293	2756	1583	1662	1408	1583	1579	1519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	17.4	15.9	19.7	16.9	16.9	17.0	16.7	17.9	19.5	19.6	19.6
Incr Delay (d2), s/veh	4.1	0.4	0.1	2.7	0.5	1.0	0.4	0.3	1.7	0.8	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.7	0.4	1.4	2.0	2.2	1.2	0.9	1.8	0.7	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	17.8	16.0	22.5	17.4	17.9	17.4	16.9	19.6	20.4	20.5	20.7
LnGrp LOS	C	B	B	C	B	B	B	B	B	C	C	C
Approach Vol, veh/h		547			859			445			239	
Approach Delay, s/veh		18.9			18.4			18.3			20.5	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	14.0		9.5	9.7	13.0		12.8				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	4.4	7.9		4.1	5.5	6.7		7.4				
Green Ext Time (p_c), s	0.0	1.0		0.1	0.0	0.5		0.1				

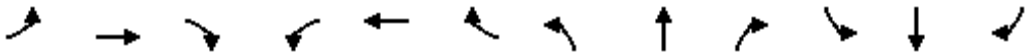
Intersection Summary			
HCM 6th Ctrl Delay		18.7	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

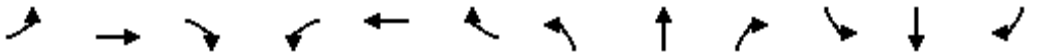
2: White Rock Rd & Sunrise Blvd 05/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	284	229	141	87	299	130	424	870	76	261	870	168
v/c Ratio	0.67	0.30	0.31	0.42	0.37	0.36	0.71	0.44	0.11	0.65	0.51	0.27
Control Delay	57.2	39.3	8.7	61.7	45.5	11.3	52.1	25.8	4.8	57.7	31.4	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.2	39.3	8.7	61.7	45.5	11.3	52.1	25.8	4.8	57.7	31.4	9.2
Queue Length 50th (ft)	99	71	0	30	69	0	144	159	0	91	178	16
Queue Length 95th (ft)	179	132	56	70	123	59	252	247	27	167	268	73
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	805	1328	682	805	1918	678	805	3349	1071	805	3340	1085
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.17	0.21	0.11	0.16	0.19	0.53	0.26	0.07	0.32	0.26	0.15

Intersection Summary

HCM 6th Signalized Intersection Summary
2: White Rock Rd & Sunrise Blvd 05/26/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	261	211	130	80	275	120	390	800	70	240	800	155
Future Volume (veh/h)	261	211	130	80	275	120	390	800	70	240	800	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	284	229	141	87	299	130	424	870	76	261	870	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	358	802	358	144	837	260	498	1996	620	335	1755	545
Arrive On Green	0.10	0.23	0.23	0.04	0.16	0.16	0.14	0.39	0.39	0.10	0.34	0.34
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	284	229	141	87	299	130	424	870	76	261	870	168
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	7.5	5.0	7.0	2.3	4.8	7.0	11.2	11.7	2.9	6.9	12.6	7.3
Cycle Q Clear(g_c), s	7.5	5.0	7.0	2.3	4.8	7.0	11.2	11.7	2.9	6.9	12.6	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	358	802	358	144	837	260	498	1996	620	335	1755	545
V/C Ratio(X)	0.79	0.29	0.39	0.60	0.36	0.50	0.85	0.44	0.12	0.78	0.50	0.31
Avail Cap(c_a), veh/h	927	1525	680	927	2192	680	927	3836	1191	927	3836	1191
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	29.9	30.7	43.9	34.6	35.5	38.9	20.8	18.2	41.1	24.2	22.4
Incr Delay (d2), s/veh	1.5	0.1	0.3	1.5	0.9	5.1	1.6	0.3	0.2	1.5	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	2.1	2.7	1.0	2.1	3.0	4.8	4.6	1.1	3.0	5.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	29.9	30.9	45.4	35.5	40.5	40.5	21.1	18.3	42.6	24.6	23.1
LnGrp LOS	D	C	C	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		654			516			1370			1299	
Approach Delay, s/veh		35.5			38.4			27.0			28.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.9	37.8	15.2	21.3	14.5	42.2	9.4	27.0
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	13.2	14.6	9.5	9.0	8.9	13.7	4.3	9.0
Green Ext Time (p_c), s	0.3	17.5	0.2	6.3	0.2	16.1	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	13843	13823	13726	13840	13675	13784	13880
Vehs Exited	13870	13841	13696	13802	13659	13764	13847
Starting Vehs	400	414	432	393	390	395	360
Ending Vehs	373	396	462	431	406	415	393
Travel Distance (mi)	7145	7111	7047	7121	7043	7097	7100
Travel Time (hr)	409.9	402.0	405.3	397.7	424.3	399.5	421.2
Total Delay (hr)	149.9	143.3	149.7	139.1	168.6	141.3	163.2
Total Stops	13137	12518	12879	12325	14149	12640	13999
Fuel Used (gal)	294.6	292.2	291.7	291.1	295.8	290.3	297.2

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	13874	13919	13702	13804
Vehs Exited	13832	13906	13642	13785
Starting Vehs	409	364	340	387
Ending Vehs	451	377	400	413
Travel Distance (mi)	7117	7166	7027	7097
Travel Time (hr)	410.7	412.8	404.7	408.8
Total Delay (hr)	151.6	152.0	149.0	150.8
Total Stops	13190	12981	13142	13093
Fuel Used (gal)	294.4	295.9	290.8	293.4

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3379	3477	3293	3283	3261	3353	3386
Vehs Exited	3365	3496	3371	3298	3257	3381	3388
Starting Vehs	400	414	432	393	390	395	360
Ending Vehs	414	395	354	378	394	367	358
Travel Distance (mi)	1733	1794	1695	1689	1666	1731	1731
Travel Time (hr)	103.1	101.4	94.3	92.8	92.2	95.7	93.8
Total Delay (hr)	39.8	36.1	33.1	31.6	31.6	32.7	31.0
Total Stops	3520	3185	3054	2832	2885	2964	2895
Fuel Used (gal)	72.4	73.7	69.8	68.5	67.4	70.4	69.9

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3384	3437	3317	3355
Vehs Exited	3427	3415	3259	3364
Starting Vehs	409	364	340	387
Ending Vehs	366	386	398	378
Travel Distance (mi)	1752	1758	1700	1725
Travel Time (hr)	97.9	99.5	95.8	96.6
Total Delay (hr)	34.1	35.2	33.8	33.9
Total Stops	2955	3085	3138	3048
Fuel Used (gal)	71.6	71.9	69.6	70.5

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3650	3658	3644	3634	3779	3668	3636
Vehs Exited	3643	3593	3554	3611	3668	3615	3527
Starting Vehs	414	395	354	378	394	367	358
Ending Vehs	421	460	444	401	505	420	467
Travel Distance (mi)	1877	1848	1869	1861	1914	1871	1830
Travel Time (hr)	109.4	101.7	106.3	104.2	119.9	109.6	109.5
Total Delay (hr)	41.1	34.6	38.5	36.7	50.2	41.5	43.3
Total Stops	3507	3021	3264	3247	4035	3561	3673
Fuel Used (gal)	78.2	75.4	76.8	76.1	81.8	77.4	76.9

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3661	3714	3644	3666
Vehs Exited	3588	3645	3581	3600
Starting Vehs	366	386	398	378
Ending Vehs	439	455	461	447
Travel Distance (mi)	1859	1889	1845	1866
Travel Time (hr)	109.8	108.5	109.4	108.9
Total Delay (hr)	42.1	39.8	42.2	41.0
Total Stops	3521	3339	3654	3480
Fuel Used (gal)	77.5	78.1	77.0	77.5

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3398	3324	3362	3418	3302	3370	3519
Vehs Exited	3434	3403	3426	3387	3360	3428	3547
Starting Vehs	421	460	444	401	505	420	467
Ending Vehs	385	381	380	432	447	362	439
Travel Distance (mi)	1769	1741	1746	1753	1725	1753	1790
Travel Time (hr)	99.0	100.8	98.9	97.1	109.3	98.3	111.2
Total Delay (hr)	34.7	37.3	35.5	33.4	46.8	34.4	45.8
Total Stops	3108	3146	3025	3088	3726	3140	3796
Fuel Used (gal)	72.3	72.1	71.9	71.7	73.7	71.8	76.3

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3454	3357	3374	3390
Vehs Exited	3504	3382	3474	3434
Starting Vehs	439	455	461	447
Ending Vehs	389	430	361	402
Travel Distance (mi)	1794	1747	1773	1759
Travel Time (hr)	105.2	103.7	103.6	102.7
Total Delay (hr)	40.1	40.1	39.2	38.7
Total Stops	3466	3410	3336	3324
Fuel Used (gal)	74.8	72.6	74.3	73.2

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3416	3364	3427	3505	3333	3393	3339
Vehs Exited	3428	3349	3345	3506	3374	3340	3385
Starting Vehs	385	381	380	432	447	362	439
Ending Vehs	373	396	462	431	406	415	393
Travel Distance (mi)	1766	1729	1737	1817	1739	1742	1749
Travel Time (hr)	98.4	98.1	105.8	103.5	103.0	95.8	106.6
Total Delay (hr)	34.4	35.4	42.6	37.4	40.0	32.6	43.1
Total Stops	3002	3166	3536	3158	3503	2975	3635
Fuel Used (gal)	71.7	71.0	73.2	74.8	72.8	70.7	74.1

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3375	3411	3367	3396
Vehs Exited	3313	3464	3328	3383
Starting Vehs	389	430	361	402
Ending Vehs	451	377	400	413
Travel Distance (mi)	1713	1771	1709	1747
Travel Time (hr)	97.7	101.2	95.9	100.6
Total Delay (hr)	35.3	36.9	33.8	37.1
Total Stops	3248	3147	3014	3235
Fuel Used (gal)	70.4	73.3	69.9	72.2

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	11.3	3.7	4.0	4.6	23.6
Total Del/Veh (s)	36.6	18.7	11.4	11.5	18.8
Stop Delay (hr)	9.8	3.3	3.0	3.2	19.3
Stop Del/Veh (s)	31.9	16.5	8.6	8.2	15.5

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	1.8	2.0	5.2	3.7	12.7
Total Del/Veh (s)	16.5	16.6	9.6	9.0	10.7
Stop Delay (hr)	1.4	1.7	2.7	2.0	7.8
Stop Del/Veh (s)	12.8	14.0	5.0	4.9	6.6

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	3.1	0.1	0.2	2.5	0.4	0.8	0.0	0.0	0.0
Total Delay (hr)	4.4	1.0	0.1	0.9	1.0	3.0	0.6	10.1	1.0	9.9	7.4	0.8
Total Del/Veh (s)	61.1	43.1	15.3	65.0	57.3	19.8	71.0	30.7	30.1	63.4	18.4	7.9
Stop Delay (hr)	4.1	0.9	0.1	0.8	0.9	2.6	0.6	7.7	0.8	8.8	5.0	0.4
Stop Del/Veh (s)	57.4	38.9	15.2	61.6	50.8	17.3	66.5	23.4	24.0	56.4	12.5	3.6

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.2
Total Delay (hr)	40.2
Total Del/Veh (s)	30.6
Stop Delay (hr)	32.7
Stop Del/Veh (s)	24.9

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	2.6	2.8	7.2	0.1	13.1	0.1	6.6	32.5
Total Del/Veh (s)	29.8	29.1	28.3	2.5	23.7	23.3	17.3	23.0
Stop Delay (hr)	2.4	2.6	5.7	0.0	9.2	0.0	5.5	25.5
Stop Del/Veh (s)	27.6	26.5	22.6	1.1	16.6	16.4	14.5	18.1

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.2	0.0	0.0	0.1
Total Delay (hr)	6.8	0.5	1.4	1.4	10.2
Total Del/Veh (s)	36.8	9.9	5.3	5.6	13.5
Stop Delay (hr)	6.1	0.4	0.9	0.9	8.3
Stop Del/Veh (s)	32.9	7.0	3.6	3.5	11.0

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	B33	NB	NB	NB	NB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	291	309	319	224	236	63	290	192	161	50	249	253
Average Queue (ft)	196	209	214	119	124	4	211	85	66	7	145	142
95th Queue (ft)	264	281	289	191	203	91	303	158	131	31	226	222
Link Distance (ft)	1013	1013	1013	1013		611	54	54	54	54	204	204
Upstream Blk Time (%)						0	30	17	14	0	1	1
Queuing Penalty (veh)						0	94	54	44	1	6	4
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	SB
Directions Served	T
Maximum Queue (ft)	215
Average Queue (ft)	133
95th Queue (ft)	208
Link Distance (ft)	204
Upstream Blk Time (%)	0
Queuing Penalty (veh)	2
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	114	143	152	150	260	249	261	155	174	191
Average Queue (ft)	54	78	71	73	136	140	139	85	101	113
95th Queue (ft)	96	121	118	121	216	218	222	130	152	172
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					0	0	0			
Queuing Penalty (veh)					2	1	2			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Queuing and Blocking Report

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	L	T	TR	R	L	L
Maximum Queue (ft)	206	227	118	64	73	62	103	126	222	208	31	166
Average Queue (ft)	85	131	29	22	21	3	37	46	125	111	4	44
95th Queue (ft)	167	199	81	51	52	28	81	100	186	189	19	122
Link Distance (ft)			411	411				351	351	351		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	263	263			167	237	237				143	143
Storage Blk Time (%)		0	0									0
Queuing Penalty (veh)		0	0									0

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	334	379	414	307	316	261	278	290	160
Average Queue (ft)	199	252	288	200	211	127	147	159	40
95th Queue (ft)	302	363	414	285	297	236	248	260	104
Link Distance (ft)	391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)	0	0	2						
Queuing Penalty (veh)	0	0	0						
Storage Bay Dist (ft)									
Storage Blk Time (%)	17								
Queuing Penalty (veh)	5								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

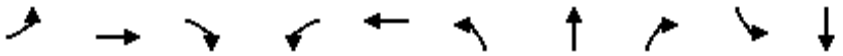
Movement	EB	EB	EB	EB	EB	EB	B14	B14	WB	WB	NB	NB
Directions Served	L	L	T	T	R	R	T	T	R	R	T	T
Maximum Queue (ft)	134	199	232	525	300	250	797	1047	78	70	302	341
Average Queue (ft)	57	97	99	333	275	203	185	281	12	7	167	206
95th Queue (ft)	114	169	196	640	357	357	886	1027	51	37	291	329
Link Distance (ft)	440	440	440	440			1753	1753	568	568	488	488
Upstream Blk Time (%)				13				0				
Queuing Penalty (veh)				0				0				
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)				0	40	2						
Queuing Penalty (veh)				1	69	3						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	NB	NB	SB	SB	SB
Directions Served	T	TR	T	T	T
Maximum Queue (ft)	382	419	201	179	170
Average Queue (ft)	227	262	164	145	142
95th Queue (ft)	352	397	213	203	190
Link Distance (ft)	488	488	50	50	50
Upstream Blk Time (%)			34	33	33
Queuing Penalty (veh)			153	147	147
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

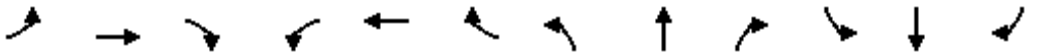
Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	194	242	267	200	164	168	142	200	190
Average Queue (ft)	107	133	160	69	70	70	63	96	91
95th Queue (ft)	166	205	233	163	138	141	126	171	166
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					2	2	1	2	2
Queuing Penalty (veh)					7	6	5	8	8
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)	0	1	3	0					
Queuing Penalty (veh)	0	2	3	0					



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	76	717	93	284	565	105	109	245	43	206
v/c Ratio	0.49	0.73	0.18	0.60	0.25	0.54	0.54	0.63	0.26	0.57
Control Delay	52.5	34.1	6.5	35.1	15.1	50.8	49.8	13.5	44.9	36.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.5	34.1	6.5	35.1	15.1	50.8	49.8	13.5	44.9	36.7
Queue Length 50th (ft)	39	181	0	131	63	54	56	0	22	41
Queue Length 95th (ft)	100	305	35	266	110	128	130	74	65	94
Internal Link Dist (ft)		445			491		394			408
Turn Bay Length (ft)	310		375	210		190		290	140	
Base Capacity (vph)	537	2915	1321	752	4448	859	904	894	859	1651
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.25	0.07	0.38	0.13	0.12	0.12	0.27	0.05	0.12

Intersection Summary



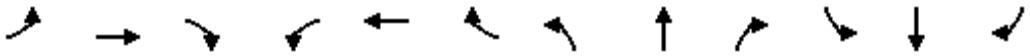
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	660	86	261	440	80	97	100	225	40	120	70
Future Volume (veh/h)	70	660	86	261	440	80	97	100	225	40	120	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	717	93	284	478	87	105	109	245	43	130	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	841	375	328	1570	279	321	337	286	163	203	112
Arrive On Green	0.05	0.24	0.24	0.18	0.36	0.36	0.18	0.18	0.18	0.09	0.09	0.09
Sat Flow, veh/h	1781	3554	1585	1781	4359	776	1781	1870	1585	1781	2211	1217
Grp Volume(v), veh/h	76	717	93	284	371	194	105	109	245	43	103	103
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1731	1781	1870	1585	1781	1777	1651
Q Serve(g_s), s	2.9	13.3	3.3	10.7	5.4	5.6	3.5	3.5	10.3	1.5	3.9	4.2
Cycle Q Clear(g_c), s	2.9	13.3	3.3	10.7	5.4	5.6	3.5	3.5	10.3	1.5	3.9	4.2
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		0.74
Lane Grp Cap(c), veh/h	97	841	375	328	1226	623	321	337	286	163	163	151
V/C Ratio(X)	0.78	0.85	0.25	0.87	0.30	0.31	0.33	0.32	0.86	0.26	0.63	0.68
Avail Cap(c_a), veh/h	646	3606	1609	904	3455	1756	1033	1085	919	1033	1030	958
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	25.2	21.3	27.3	15.8	15.9	24.6	24.6	27.4	29.2	30.2	30.4
Incr Delay (d2), s/veh	5.0	1.0	0.1	2.7	0.1	0.1	0.2	0.2	2.9	0.3	1.5	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.4	1.2	4.6	2.0	2.1	1.4	1.5	3.9	0.7	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.2	26.1	21.5	30.1	15.9	16.0	24.8	24.8	30.3	29.5	31.7	32.4
LnGrp LOS	D	C	C	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		886			849			459			249	
Approach Delay, s/veh		26.6			20.7			27.7			31.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	30.0		11.8	17.8	21.5		17.8				
Change Period (Y+Rc), s	5.5	* 5.2		5.5	* 5.1	* 5.2		5.4				
Max Green Setting (Gmax), s	25.0	* 70		40.0	* 35	* 70		40.0				
Max Q Clear Time (g_c+I1), s	4.9	7.6		6.2	12.7	15.3		12.3				
Green Ext Time (p_c), s	0.0	0.7		0.2	0.1	1.0		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		25.3
HCM 6th LOS		C

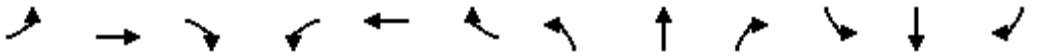
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	248	420	370	152	360	337	337	1011	65	261	1120	262
v/c Ratio	0.70	0.55	0.65	0.60	0.38	0.66	0.76	0.47	0.09	0.71	0.55	0.36
Control Delay	73.3	52.2	18.0	76.1	51.5	19.9	71.8	29.4	3.1	72.9	32.9	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.3	52.2	18.0	76.1	51.5	19.9	71.8	29.4	3.1	72.9	32.9	13.0
Queue Length 50th (ft)	109	174	57	67	102	54	147	220	0	114	263	53
Queue Length 95th (ft)	196	278	193	131	166	186	256	361	20	205	423	156
Internal Link Dist (ft)		802			424			689			453	
Turn Bay Length (ft)	265		600	205		185	278		170	251		175
Base Capacity (vph)	669	1127	703	669	1595	679	669	2816	914	669	2778	938
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.37	0.53	0.23	0.23	0.50	0.50	0.36	0.07	0.39	0.40	0.28

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	386	340	140	331	310	310	930	60	240	1030	241
Future Volume (veh/h)	228	386	340	140	331	310	310	930	60	240	1030	241
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	248	420	370	152	360	337	337	1011	65	261	1120	262
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	1020	455	204	1322	410	389	1996	620	313	1884	585
Arrive On Green	0.09	0.29	0.29	0.06	0.26	0.26	0.11	0.39	0.39	0.09	0.37	0.37
Sat Flow, veh/h	3456	3554	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	248	420	370	152	360	337	337	1011	65	261	1120	262
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	9.3	12.6	28.7	5.7	7.4	26.4	12.7	19.9	3.4	9.8	23.4	16.5
Cycle Q Clear(g_c), s	9.3	12.6	28.7	5.7	7.4	26.4	12.7	19.9	3.4	9.8	23.4	16.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	300	1020	455	204	1322	410	389	1996	620	313	1884	585
V/C Ratio(X)	0.83	0.41	0.81	0.75	0.27	0.82	0.87	0.51	0.10	0.83	0.59	0.45
Avail Cap(c_a), veh/h	654	1076	480	654	1546	480	654	2705	840	654	2705	840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.3	38.1	43.8	61.2	39.0	46.1	57.7	30.6	25.6	59.1	33.7	31.5
Incr Delay (d2), s/veh	2.2	0.1	9.0	2.1	0.4	14.5	3.1	0.4	0.2	2.2	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	5.6	12.4	2.6	3.2	12.0	5.7	8.3	1.3	4.4	9.8	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.6	38.2	52.8	63.3	39.4	60.5	60.7	31.0	25.7	61.3	34.3	32.6
LnGrp LOS	E	D	D	E	D	E	E	C	C	E	C	C
Approach Vol, veh/h		1038			849			1413			1643	
Approach Delay, s/veh		49.0			52.1			37.8			38.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	54.6	17.0	40.2	17.5	57.5	13.3	43.9
Change Period (Y+Rc), s	5.5	* 5.8	5.5	* 6	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	25.0	* 70	25.0	* 40	25.0	* 70	25.0	40.0
Max Q Clear Time (g_c+I1), s	14.7	25.4	11.3	28.4	11.8	21.9	7.7	30.7
Green Ext Time (p_c), s	0.2	23.3	0.2	5.8	0.2	18.6	0.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Simulation Summary

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:05	3:05	3:05	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	15372	15149	15250	15093	14948	15220	15288
Vehs Exited	15372	15151	15241	15040	14916	15129	15255
Starting Vehs	488	454	442	423	445	445	452
Ending Vehs	488	452	451	476	477	536	485
Travel Distance (mi)	7981	7837	7875	7829	7741	7864	7921
Travel Time (hr)	535.8	490.5	562.0	481.4	463.4	508.2	495.6
Total Delay (hr)	245.5	205.6	274.8	196.1	181.9	221.5	207.4
Total Stops	15672	14474	15579	14913	14189	14306	14697
Fuel Used (gal)	349.2	335.3	352.1	331.5	324.4	339.3	338.1

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	15450	15392	15349	15251
Vehs Exited	15412	15337	15284	15214
Starting Vehs	499	417	436	450
Ending Vehs	537	472	501	488
Travel Distance (mi)	8005	7947	7969	7897
Travel Time (hr)	552.1	483.8	535.7	510.8
Total Delay (hr)	261.1	194.3	246.1	223.4
Total Stops	16449	14557	14564	14935
Fuel Used (gal)	352.8	336.1	347.7	340.7

Interval #0 Information Seeding

Start Time	3:05
End Time	3:15
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

SimTraffic Simulation Summary

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3807	3703	3697	3660	3576	3662	3736
Vehs Exited	3825	3752	3593	3618	3493	3698	3727
Starting Vehs	488	454	442	423	445	445	452
Ending Vehs	470	405	546	465	528	409	461
Travel Distance (mi)	1980	1927	1873	1901	1837	1919	1930
Travel Time (hr)	118.6	119.2	147.1	115.2	109.7	111.6	116.0
Total Delay (hr)	46.6	48.9	78.7	46.2	43.0	41.7	45.9
Total Stops	3674	3614	4247	3611	3366	3445	3461
Fuel Used (gal)	83.0	82.7	87.1	80.2	76.8	79.8	81.4

Interval #1 Information

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3782	3789	3760	3719
Vehs Exited	3839	3811	3696	3707
Starting Vehs	499	417	436	450
Ending Vehs	442	395	500	461
Travel Distance (mi)	1995	1973	1932	1927
Travel Time (hr)	121.9	118.2	119.7	119.7
Total Delay (hr)	49.4	46.4	49.4	49.6
Total Stops	3726	3487	3604	3624
Fuel Used (gal)	84.0	83.3	81.8	82.0

SimTraffic Simulation Summary

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4158	4003	4058	3965	4043	4037	4112
Vehs Exited	4068	3880	4063	3905	4070	3948	4045
Starting Vehs	470	405	546	465	528	409	461
Ending Vehs	560	528	541	525	501	498	528
Travel Distance (mi)	2117	2035	2105	2026	2089	2059	2116
Travel Time (hr)	141.6	131.2	138.7	122.3	125.4	129.4	140.8
Total Delay (hr)	64.3	57.1	61.8	48.5	49.3	54.2	63.8
Total Stops	4206	3792	4219	3801	3641	3781	4028
Fuel Used (gal)	92.9	87.9	91.7	85.0	88.0	88.4	92.5

Interval #2 Information

Start Time	3:30
End Time	3:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3999	4040	4008	4041
Vehs Exited	3838	3963	3948	3973
Starting Vehs	442	395	500	461
Ending Vehs	603	472	560	527
Travel Distance (mi)	2034	2054	2076	2071
Travel Time (hr)	137.3	129.2	135.5	133.2
Total Delay (hr)	63.3	54.2	59.9	57.6
Total Stops	4104	3826	3885	3927
Fuel Used (gal)	89.0	87.6	89.3	89.2

SimTraffic Simulation Summary

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3752	3747	3739	3695	3650	3714	3744
Vehs Exited	3796	3829	3835	3775	3711	3727	3757
Starting Vehs	560	528	541	525	501	498	528
Ending Vehs	516	446	445	445	440	485	515
Travel Distance (mi)	1965	1968	1955	1965	1929	1924	1949
Travel Time (hr)	136.4	120.1	136.2	125.7	116.5	132.9	125.0
Total Delay (hr)	65.0	48.7	64.9	54.0	46.4	62.6	53.8
Total Stops	3877	3550	3512	3877	3661	3548	3763
Fuel Used (gal)	86.8	83.0	86.5	84.7	80.8	85.0	84.0

Interval #3 Information

Start Time	3:45
End Time	4:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3831	3757	3710	3734
Vehs Exited	3895	3781	3829	3793
Starting Vehs	603	472	560	527
Ending Vehs	539	448	441	472
Travel Distance (mi)	1981	1970	1973	1958
Travel Time (hr)	140.6	119.0	143.2	129.6
Total Delay (hr)	68.7	47.1	71.7	58.3
Total Stops	3974	3603	3504	3684
Fuel Used (gal)	87.9	83.3	89.0	85.1

SimTraffic Simulation Summary

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3655	3696	3756	3773	3679	3807	3696
Vehs Exited	3683	3690	3750	3742	3642	3756	3726
Starting Vehs	516	446	445	445	440	485	515
Ending Vehs	488	452	451	476	477	536	485
Travel Distance (mi)	1919	1907	1942	1937	1887	1961	1926
Travel Time (hr)	139.2	119.9	139.9	118.1	111.8	134.3	113.8
Total Delay (hr)	69.6	50.9	69.3	47.4	43.2	63.0	43.9
Total Stops	3915	3518	3601	3624	3521	3532	3445
Fuel Used (gal)	86.4	81.8	86.8	81.5	78.8	86.2	80.3

Interval #4 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3838	3806	3871	3757
Vehs Exited	3840	3782	3811	3741
Starting Vehs	539	448	441	472
Ending Vehs	537	472	501	488
Travel Distance (mi)	1995	1949	1987	1941
Travel Time (hr)	152.2	117.4	137.3	128.4
Total Delay (hr)	79.7	46.6	65.1	57.9
Total Stops	4645	3641	3571	3702
Fuel Used (gal)	91.9	82.0	87.6	84.3

SimTraffic Performance Report

3: Sunrise Blvd & US50 EB Ramps Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	14.9	2.8	7.4	4.8	29.9
Total Del/Veh (s)	39.0	15.6	14.3	13.2	20.7
Stop Delay (hr)	12.6	2.5	5.6	3.6	24.2
Stop Del/Veh (s)	32.9	13.8	10.7	9.8	16.7

4: US50 WB Ramps & Sunrise Blvd Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	1.9	3.0	8.0	3.3	16.2
Total Del/Veh (s)	22.8	24.0	11.0	8.0	12.0
Stop Delay (hr)	1.6	2.7	3.9	1.8	9.9
Stop Del/Veh (s)	19.4	21.0	5.3	4.4	7.4

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.6	19.7	0.7	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.8	0.2	0.3	42.0	44.4	44.9	0.0	0.0	0.0
Total Delay (hr)	6.0	1.0	0.1	2.5	1.8	4.9	1.4	27.9	1.0	17.6	9.7	0.6
Total Del/Veh (s)	70.0	50.0	14.0	67.9	57.3	28.9	92.4	63.4	66.9	99.8	26.6	8.1
Stop Delay (hr)	5.6	0.9	0.1	2.4	1.6	4.3	1.3	23.0	0.8	16.0	7.3	0.3
Stop Del/Veh (s)	65.5	46.0	13.9	63.5	50.2	25.3	85.3	52.2	57.7	90.7	20.1	4.2

5: Zinfandel Dr & White Rock Rd Performance by movement

Movement	All
Denied Delay (hr)	21.2
Denied Del/Veh (s)	14.8
Total Delay (hr)	74.4
Total Del/Veh (s)	51.7
Stop Delay (hr)	63.5
Stop Del/Veh (s)	44.1

SimTraffic Performance Report

6: US50 EB Ramps & Zinfandel Dr Performance by movement

Movement	EBL	EBT	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay (hr)	5.5	0.9	5.3	1.1	16.8	0.1	6.8	36.5
Total Del/Veh (s)	34.4	26.9	23.3	10.0	24.5	24.9	17.5	22.7
Stop Delay (hr)	5.0	0.8	4.2	0.8	11.2	0.1	5.7	27.8
Stop Del/Veh (s)	31.1	25.1	18.7	7.3	16.3	18.0	14.7	17.3

7: US50 WB Ramps Performance by movement

Movement	WBL	WBR	NBT	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.4	0.3	0.0	0.0	0.1
Total Delay (hr)	5.1	1.5	2.2	1.6	10.4
Total Del/Veh (s)	36.2	14.2	5.2	5.1	10.5
Stop Delay (hr)	4.6	1.2	1.4	1.0	8.1
Stop Del/Veh (s)	32.7	11.3	3.3	3.0	8.2

Queuing and Blocking Report

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	EB	EB	EB	EB	EB	B33	NB	NB	NB	NB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	350	368	380	188	195	63	301	254	273	86	258	262
Average Queue (ft)	247	263	272	101	106	2	268	147	148	23	152	147
95th Queue (ft)	332	349	362	167	173	64	319	236	245	63	230	232
Link Distance (ft)	1013	1013	1013	1013		611	54	54	54	54	204	204
Upstream Blk Time (%)						0	34	28	28	3	2	1
Queuing Penalty (veh)						0	162	132	129	15	7	5
Storage Bay Dist (ft)					510							
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 3: Sunrise Blvd & US50 EB Ramps

Movement	SB
Directions Served	T
Maximum Queue (ft)	221
Average Queue (ft)	138
95th Queue (ft)	207
Link Distance (ft)	204
Upstream Blk Time (%)	1
Queuing Penalty (veh)	2
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: US50 WB Ramps & Sunrise Blvd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	118	132	174	174	308	324	328	158	181	199
Average Queue (ft)	53	77	93	94	187	186	188	87	102	113
95th Queue (ft)	96	116	150	149	285	286	297	140	158	176
Link Distance (ft)		2272	2272		243	243	243	377	377	377
Upstream Blk Time (%)					2	2	2			
Queuing Penalty (veh)					16	14	18			
Storage Bay Dist (ft)	416			250						
Storage Blk Time (%)			0							
Queuing Penalty (veh)			0							

Queuing and Blocking Report

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	L	T	TR	R	L	L
Maximum Queue (ft)	261	270	234	47	58	146	152	208	302	286	52	168
Average Queue (ft)	129	171	34	19	19	47	89	86	182	170	14	92
95th Queue (ft)	235	255	120	45	47	135	140	168	266	252	42	193
Link Distance (ft)			411	411				351	351	351		
Upstream Blk Time (%)									0	0		
Queuing Penalty (veh)									0	0		
Storage Bay Dist (ft)	263	263			167	237	237				143	143
Storage Blk Time (%)	0	1	0					0				0
Queuing Penalty (veh)	0	0	1					0				2

Intersection: 5: Zinfandel Dr & White Rock Rd

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	T	R
Maximum Queue (ft)	413	424	434	463	459	448	454	468	259
Average Queue (ft)	352	382	403	314	321	211	213	227	48
95th Queue (ft)	440	445	441	476	473	428	407	445	180
Link Distance (ft)	391	391	391	488	488	488	488	488	488
Upstream Blk Time (%)	10	20	47	1	0	1	1	3	0
Queuing Penalty (veh)	0	0	0	3	2	3	4	12	0
Storage Bay Dist (ft)									
Storage Blk Time (%)	48								
Queuing Penalty (veh)	25								

Queuing and Blocking Report

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	EB	EB	EB	EB	EB	EB	B14	B14	WB	WB	NB	NB
Directions Served	L	L	T	T	R	R	T	T	R	R	T	T
Maximum Queue (ft)	264	351	121	515	300	250	573	666	172	171	441	482
Average Queue (ft)	116	202	37	189	241	151	100	138	86	62	224	267
95th Queue (ft)	213	310	94	532	357	342	690	774	156	134	407	457
Link Distance (ft)	440	440	440	440			1753	1753	568	568	488	488
Upstream Blk Time (%)				8			0	1			0	0
Queuing Penalty (veh)				0			0	0			0	1
Storage Bay Dist (ft)					200	200						
Storage Blk Time (%)				0	27	1						
Queuing Penalty (veh)				0	15	1						

Intersection: 6: US50 EB Ramps & Zinfandel Dr

Movement	NB	NB	SB	SB	SB
Directions Served	T	TR	T	T	T
Maximum Queue (ft)	512	505	194	179	173
Average Queue (ft)	286	314	167	143	139
95th Queue (ft)	482	510	213	202	194
Link Distance (ft)	488	488	50	50	50
Upstream Blk Time (%)	0	1	36	33	34
Queuing Penalty (veh)	1	5	165	155	156
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: US50 WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	LR	R	T	T	T	T	T
Maximum Queue (ft)	168	192	210	199	191	189	164	229	197
Average Queue (ft)	88	105	124	80	100	101	85	110	99
95th Queue (ft)	137	159	177	140	188	186	149	198	173
Link Distance (ft)		1501	1501		101	101	101	129	129
Upstream Blk Time (%)					6	5	3	3	2
Queuing Penalty (veh)					30	26	16	16	12
Storage Bay Dist (ft)	185			185					
Storage Blk Time (%)	0	0	0	0					
Queuing Penalty (veh)	0	0	1	0					

Appendix F

Analysis Worksheets for Signal Warrants

Traffic Signal Warrants Worksheet Warrant 3:
Peak Hour
Source: MUTCD 2012 California Supplement

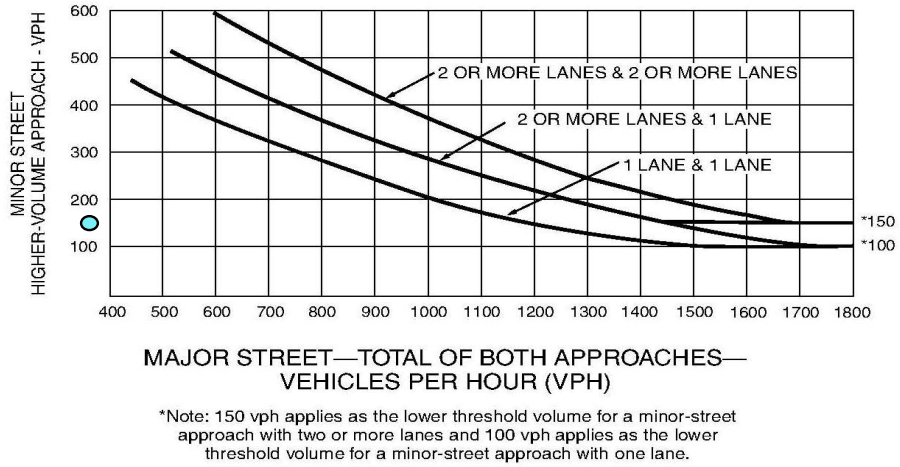
Scenario: Existing Plus Project Conditions AM
Intersection: Kilgore Rd AND Project Driveway
Comments:

	PART A or PART B	SATISFIED	**NO**
PART A (All parts 1, 2, and 3 below must be satisfied)		SATISFIED	**NO**
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND			No
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND			Yes
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.			No
PART B		SATISFIED	**No**

APPROACH LANES	One	2 or More
Both Approaches - Major Street		373
Highest Approach - Minor Street	157	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet Warrant 3:
Peak Hour
Source: MUTCD 2012 California Supplement

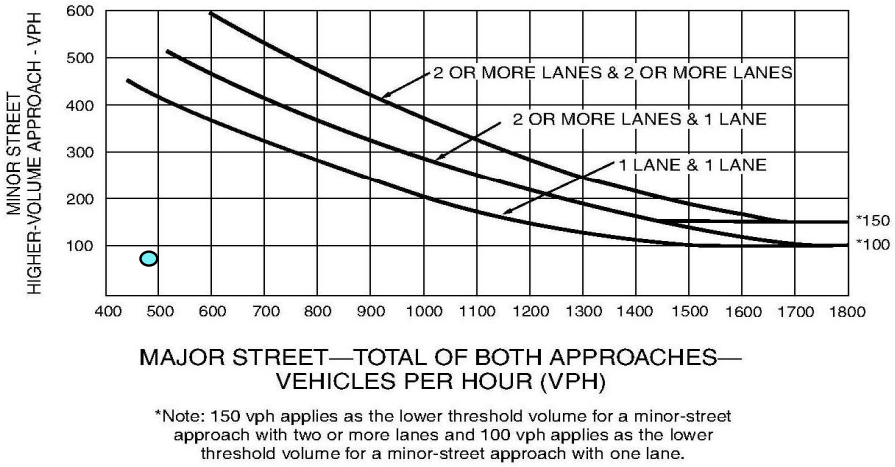
Scenario: Existing Plus Project Conditions PM
Intersection: Kilgore Rd AND Project Driveway
Comments:

	PART A or PART B	SATISFIED	**NO**
PART A (All parts 1, 2, and 3 below must be satisfied)		SATISFIED	**NO**
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND			No
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND			No
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.			No
PART B		SATISFIED	**No**

APPROACH LANES	One	2 or More
Both Approaches - Major Street		497
Highest Approach - Minor Street	91	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet Warrant 3:
Peak Hour
Source: MUTCD 2012 California Supplement

Scenario: Cumulative Year Conditions AM
Intersection: Kilgore Rd AND Project Driveway
Comments:

	PART A or PART B	SATISFIED	**NO**

PART A
(All parts 1, 2, and 3 below must be satisfied) SATISFIED **NO**

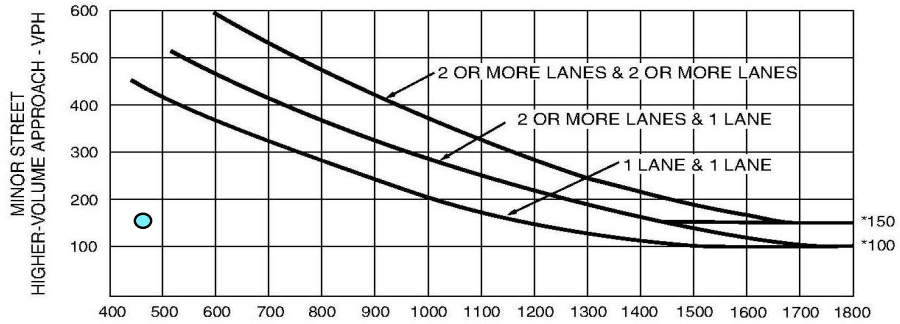
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND — No
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND — Yes
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches. — No

PART B SATISFIED **No**

APPROACH LANES	One	2 or More
Both Approaches - Major Street		471
Highest Approach - Minor Street	157	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet Warrant 3: Peak Hour
Source: MUTCD 2012 California Supplement

Scenario: Cumulative Year Conditions PM
Intersection: Kilgore Rd AND Project Driveway
Comments:

	PART A or PART B	SATISFIED	**NO**

PART A
(All parts 1, 2, and 3 below must be satisfied) SATISFIED **NO**

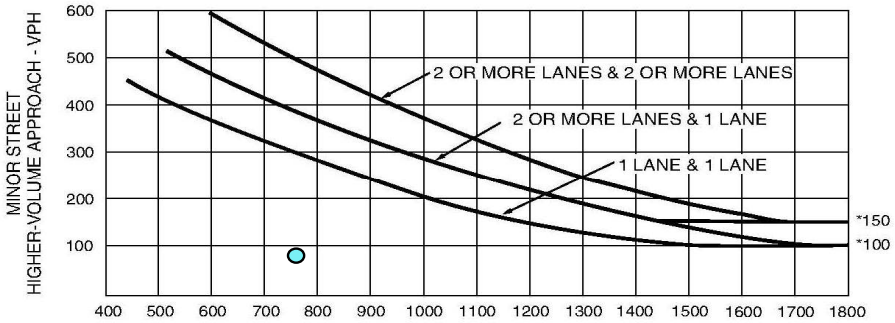
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND — No
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND — No
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches. — Yes

PART B SATISFIED **No**

APPROACH LANES	One	2 or More
Both Approaches - Major Street		764
Highest Approach - Minor Street	91	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet
Warrant 3: Peak Hour
Source: MUTCD 2012 California Supplement

Scenario: Cumulative Year Plus Project Conditions AM
Intersection: Kilgore Rd AND Project Driveway
Comments:

	PART A or PART B	SATISFIED	**NO**

PART A
(All parts 1, 2, and 3 below must be satisfied) SATISFIED **NO**

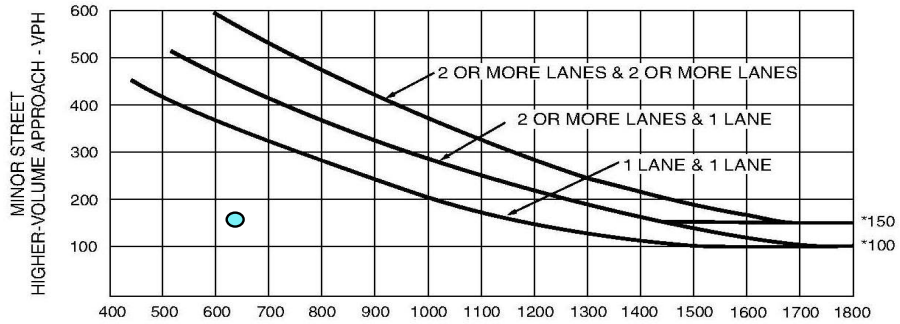
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND — No
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND — Yes
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches. — Yes

PART B SATISFIED **No**

APPROACH LANES	One	2 or More
Both Approaches - Major Street		637
Highest Approach - Minor Street	157	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet
Warrant 3: Peak Hour
Source: MUTCD 2012 California Supplement

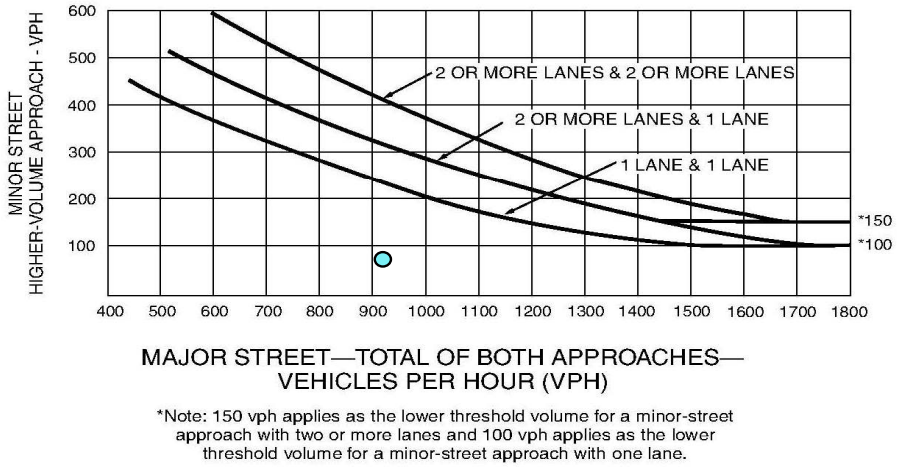
Scenario: Cumulative Year Plus Project Conditions PM
Intersection: Kilgore Rd AND Project Driveway
Comments:

	PART A or PART B	SATISFIED	NO
PART A (All parts 1, 2, and 3 below must be satisfied)		SATISFIED	**NO**
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND			No
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND			No
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.			Yes
PART B		SATISFIED	**No**

APPROACH LANES	One	2 or More
Both Approaches - Major Street		910
Highest Approach - Minor Street	91	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Appendix G

Streetlight Data Sheets

Location: Sunrise Blvd & US-50 EB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-003
Date: 1/11/2022

Streetlight Data - Totals

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				US-50 EB Ramps				US-50 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	4	2	0	0	3	2	0	3	0	2	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	95	0	0	0	286	0	0	104	0	92	0	0	0	0	0	577
6:15 AM	0	148	0	0	0	244	0	0	113	0	104	0	0	0	0	0	609
6:30 AM	0	179	0	0	0	392	0	0	168	0	122	0	0	0	0	0	861
6:45 AM	0	208	0	0	0	359	0	0	180	0	134	0	0	0	0	0	881
7:00 AM	0	204	0	0	0	383	0	0	201	0	146	0	0	0	0	0	934
7:15 AM	0	217	0	0	0	270	0	0	296	0	162	0	0	0	0	0	945
7:30 AM	0	263	0	0	0	379	0	0	273	0	193	0	0	0	0	0	1108
7:45 AM	0	262	0	0	0	495	0	0	344	0	225	0	0	0	0	0	1326
8:00 AM	0	314	0	0	0	346	0	0	351	0	155	0	0	0	0	0	1166
8:15 AM	0	219	0	0	0	534	0	0	393	0	107	0	0	0	0	0	1253
8:30 AM	0	242	0	0	0	541	0	0	306	0	129	0	0	0	0	0	1218
8:45 AM	0	270	0	0	0	469	0	0	345	0	124	0	0	0	0	0	1208
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2621	0	0	0	4698	0	0	3074	0	1693	0	0	0	0	0	12086
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	64.49%	0.00%	35.51%	0.00%					
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	1045	0	0	0	1890	0	0	1395	0	515	0	0	0	0	0	4845
PEAK HR FACTOR :	0.000	0.832	0.000	0.000	0.000	0.873	0.000	0.000	0.887	0.000	0.831	0.000	0.000	0.000	0.000	0.000	0.967
	0.832				0.873				0.944								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	4	2	0	0	3	2	0	3	0	2	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	598	0	0	0	455	0	0	404	0	95	0	0	0	0	0	1552
4:15 PM	0	513	0	0	0	552	0	0	468	0	112	0	0	0	0	0	1645
4:30 PM	0	576	0	0	0	498	0	0	398	0	128	0	0	0	0	0	1600
4:45 PM	0	520	0	0	0	585	0	0	449	0	128	0	0	0	0	0	1682
5:00 PM	0	529	0	0	0	558	0	0	405	0	117	0	0	0	0	0	1609
5:15 PM	0	577	0	0	0	555	0	0	356	0	149	0	0	0	0	0	1637
5:30 PM	0	446	0	0	0	423	0	0	463	0	147	0	0	0	0	0	1479
5:45 PM	0	431	0	0	0	502	0	0	487	0	141	0	0	0	0	0	1561
6:00 PM	0	511	0	0	0	447	0	0	409	0	130	0	0	0	0	0	1497
6:15 PM	0	348	0	0	0	443	0	0	409	0	127	0	0	0	0	0	1327
6:30 PM	0	442	0	0	0	322	0	0	335	0	128	0	0	0	0	0	1227
6:45 PM	0	241	0	0	0	325	0	0	349	0	116	0	0	0	0	0	1031
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	5732	0	0	0	5665	0	0	4932	0	1518	0	0	0	0	0	17847
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	76.47%	0.00%	23.53%	0.00%					
PEAK HR :	03:15 PM - 04:15 PM																TOTAL
PEAK HR VOL :	0	2138	0	0	0	2193	0	0	1720	0	485	0	0	0	0	0	6536
PEAK HR FACTOR :	0.000	0.928	0.000	0.000	0.000	0.937	0.000	0.000	0.919	0.000	0.947	0.000	0.000	0.000	0.000	0.000	0.971
	0.928				0.937				0.950								

Location: Zinfandel Dr & US-50 EB Ramps/Gold Center Dr
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-006
Date: 1/11/2022

Streetlight Data - Totals

NS/EW Streets:	Zinfandel Dr					Zinfandel Dr				US-50 EB Ramps/Gold Center Dr				US-50 EB Ramps/Gold Center Dr					
AM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND					
	0	4	0	0	0	0	3	1	0	2	2	2	0	0	0	2	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
6:00 AM	0	209	2	0	0	0	104	0	0	27	174	9	0	4	0	31	0	2	562
6:15 AM	0	313	0	0	0	0	122	0	0	50	103	0	0	7	0	21	0	1	617
6:30 AM	0	302	0	0	0	0	164	0	0	62	109	6	0	7	0	26	0	2	678
6:45 AM	0	283	0	0	0	0	187	0	0	93	148	18	0	2	0	17	0	0	748
7:00 AM	0	350	0	0	0	0	170	0	0	62	155	6	0	0	0	9	0	5	757
7:15 AM	0	489	0	0	0	0	312	0	0	68	167	0	0	2	0	25	0	6	1069
7:30 AM	0	462	0	0	0	0	275	0	0	104	159	0	0	0	0	47	0	4	1051
7:45 AM	0	606	0	0	0	0	359	0	0	147	210	0	0	0	0	48	0	5	1375
8:00 AM	0	602	0	0	0	0	359	0	0	147	214	0	0	0	0	36	0	5	1363
8:15 AM	0	508	1	0	0	0	291	0	0	125	229	2	0	2	0	31	0	6	1195
8:30 AM	0	331	9	0	0	0	314	0	0	125	208	7	0	5	0	29	0	5	1033
8:45 AM	0	317	19	0	0	0	245	0	0	142	213	8	0	2	0	33	0	4	983
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
TOTAL VOLUMES :	0	4772	31	0	0	0	2902	0	0	1152	2089	56	0	31	0	353	0	45	11431
APPROACH %'s :	0.00%	99.35%	0.65%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	34.94%	63.36%	1.70%	0.00%	7.23%	0.00%	82.28%	0.00%	10.49%	
PEAK HR :	07:30 AM - 08:30 AM																		TOTAL
PEAK HR VOL :	0	2178	1	0	0	0	1284	0	0	523	812	2	0	2	0	162	0	20	4984
PEAK HR FACTOR :	0.000	0.899	0.250	0.000	0.000	0.000	0.894	0.000	0.000	0.889	0.886	0.250	0.000	0.250	0.000	0.844	0.000	0.833	0.906
			0.899				0.894				0.926					0.868			

PM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND					
	0	4	0	0	0	0	3	1	0	2	2	2	0	0	0	2	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
4:00 PM	0	727	5	0	0	0	302	0	0	326	53	4	0	0	0	134	0	6	1557
4:15 PM	0	727	18	0	0	0	414	0	0	341	48	9	0	2	0	155	0	9	1723
4:30 PM	0	748	18	0	0	0	417	0	0	434	46	23	0	2	0	189	0	11	1888
4:45 PM	0	723	5	0	0	0	443	0	0	380	46	33	0	6	0	191	0	5	1832
5:00 PM	0	1038	0	0	0	0	428	0	0	372	33	33	0	2	0	222	0	14	2142
5:15 PM	0	585	3	0	0	0	503	0	0	346	31	14	0	0	0	166	0	10	1658
5:30 PM	0	629	2	0	0	0	371	0	0	306	54	6	0	2	0	113	0	13	1496
5:45 PM	0	607	3	0	0	0	413	0	0	254	74	5	0	1	0	95	0	12	1464
6:00 PM	0	532	7	0	0	0	296	0	0	214	64	2	0	0	3	106	0	27	1251
6:15 PM	0	455	8	0	0	0	497	0	0	197	34	0	0	0	0	81	0	20	1292
6:30 PM	0	499	11	0	0	0	406	0	0	219	38	0	0	0	0	60	0	14	1247
6:45 PM	2	527	17	0	0	0	299	0	0	288	56	0	0	6	0	44	0	9	1248
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WU2	TOTAL
TOTAL VOLUMES :	2	7797	97	0	0	0	4789	0	0	3677	577	129	0	21	3	1556	0	150	18798
APPROACH %'s :	0.03%	98.75%	1.23%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	83.89%	13.16%	2.94%	0.00%	1.21%	0.17%	89.94%	0.00%	8.67%	
PEAK HR :	04:15 PM - 05:15 PM																		TOTAL
PEAK HR VOL :	0	2353	15	0	0	0	1583	0	0	1120	223	27	0	3	3	480	0	62	5869
PEAK HR FACTOR :	0.000	0.935	0.536	0.000	0.000	0.000	0.787	0.000	0.000	0.809	0.753	0.482	0.000	0.375	0.250	0.723	0.000	0.574	0.885
			0.938				0.787				0.876					0.778			

Location: Zinfandel Dr & US-50 WB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 22-070003-007
Date: 1/11/2022

Streetlight Data - Totals

NS/EW Streets:	Zinfandel Dr				Zinfandel Dr				US-50 WB Ramps				US-50 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	2.5	0	1.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	50	0	0	0	32	0	0	0	0	0	0	69	0	10	0	161
6:15 AM	0	56	0	0	0	62	0	0	0	0	0	0	69	0	17	0	204
6:30 AM	0	80	0	0	0	86	0	0	0	0	0	0	76	0	33	0	275
6:45 AM	0	113	0	0	0	68	0	0	0	0	0	0	95	0	36	0	312
7:00 AM	0	123	0	0	0	43	0	0	0	0	0	0	111	0	47	0	324
7:15 AM	0	123	0	0	0	64	0	0	0	0	0	0	239	0	46	0	472
7:30 AM	0	163	0	0	0	85	0	0	0	0	0	0	191	0	35	0	474
7:45 AM	0	322	0	0	0	103	0	0	0	0	0	0	233	0	50	0	708
8:00 AM	0	249	0	0	0	125	0	0	0	0	0	0	200	0	60	0	634
8:15 AM	0	184	0	0	0	140	0	0	0	0	0	0	159	0	52	0	535
8:30 AM	0	150	0	0	0	126	0	0	0	0	0	0	143	0	36	0	455
8:45 AM	0	179	0	0	0	96	0	0	0	0	0	0	132	0	29	0	436
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1792	0	0	0	1030	0	0	0	0	0	0	1717	0	451	0	4990
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					79.20%	0.00%	20.80%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	918	0	0	0	453	0	0	0	0	0	0	783	0	197	0	2351
PEAK HR FACTOR :	0.000	0.713	0.000	0.000	0.000	0.809	0.000	0.000	0.000	0.000	0.000	0.000	0.840	0.000	0.821	0.000	0.830
		0.713				0.809								0.866			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	2.5	0	1.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	367	0	0	0	250	0	0	0	0	0	0	132	0	68	0	817
4:15 PM	0	424	0	0	0	216	0	0	0	0	0	0	102	0	79	0	821
4:30 PM	0	397	0	0	0	247	0	0	0	0	0	0	119	0	89	0	852
4:45 PM	0	417	0	0	0	212	0	0	0	0	0	0	138	0	98	0	865
5:00 PM	0	572	0	0	0	210	0	0	0	0	0	0	137	0	95	0	1014
5:15 PM	0	360	0	0	0	234	0	0	0	0	0	0	124	0	87	0	805
5:30 PM	0	358	0	0	0	245	0	0	0	0	0	0	115	0	88	0	806
5:45 PM	0	353	0	0	0	215	0	0	0	0	0	0	113	0	73	0	754
6:00 PM	0	294	0	0	0	201	0	0	0	0	0	0	124	0	88	0	707
6:15 PM	0	243	0	0	0	305	0	0	0	0	0	0	143	0	75	0	766
6:30 PM	0	312	0	0	0	251	0	0	0	0	0	0	116	0	59	0	738
6:45 PM	0	354	0	0	0	188	0	0	0	0	0	0	96	0	72	0	710
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4451	0	0	0	2774	0	0	0	0	0	0	8680	0	971	0	16876
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					89.94%	0.00%	10.06%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	1365	0	0	0	895	0	0	0	0	0	0	476	0	336	0	3072
PEAK HR FACTOR :	0.000	0.948	0.000	0.000	0.000	0.913	0.000	0.000	0.000	0.000	0.000	0.000	0.960	0.000	0.955	0.000	0.953
		0.948				0.913								0.958			

Appendix H

NCHRP-684 Internal Capture Data Sheets

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Residences at Capital Center	**Organization:**	Kimley-Horn and Associates, Inc.
Project Location:	Rancho Cordova, CA	**Performed By:**	AB
Scenario Description:	Opening Year plus Project	**Date:**	1/10/2022
Analysis Year:		**Checked By:**	SD
Analysis Period:	**AM Street Peak Hour**	**Date:**	5/10/2022

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office		-	1,000 Sq Ft	0	0	0
Retail		-	1,000 Sq Ft	0	0	0
Restaurant		9	1,000 Sq Ft	81	45	36
Cinema/Entertainment		-	Screen(s)	0	0	0
Residential		417	Dwelling Unit(s)	172	41	131
Hotel		-	Room(s)	0	0	0
All Other Land Uses[2]		-	0	0	0	0
				253	86	167

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.00	0%	0%	1.00	0%	0%
Retail	1.00	0%	0%	1.00	0%	0%
Restaurant	1.00	0%	0%	1.00	0%	0%
Cinema/Entertainment	1.00	0%	0%	1.00	0%	0%
Residential	1.00	0%	0%	1.00	0%	0%
Hotel	1.00	0%	0%	1.00	0%	0%
All Other Land Uses[2]	1.00	0%	0%	1.00	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	9	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	253	86	167
Internal Capture Percentage	8%	12%	6%
External Vehicle-Trips[5]	233	76	157
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	20%	3%
Cinema/Entertainment	N/A	N/A
Residential	2%	7%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Residences at Capital Center
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	0	0	1.00	0	0
Restaurant	1.00	45	45	1.00	36	36
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	41	41	1.00	130.71	131
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	11	5		0	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	3	1	26	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	10	0	0	0
Retail	0		23	0	1	0
Restaurant	0	0		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	9	0		0
Hotel	0	0	3	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	0	0	0	0	0
Restaurant	9	36	45	36	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	40	41	40	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	0	0	0	0	0
Restaurant	1	35	36	35	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	9	122	131	122	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Residences at Capital Center	**Organization:**	Kimley-Horn and Associates, Inc.
Project Location:	Rancho Cordova, CA	**Performed By:**	AB
Scenario Description:	Opening Year plus Project	**Date:**	1/10/2022
Analysis Year:		**Checked By:**	SD
Analysis Period:	**PM Street Peak Hour**	**Date:**	5/10/2022

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office		-	1,000 Sq Ft	0	0	0
Retail		-	1,000 Sq Ft	0	0	0
Restaurant		9	1,000 Sq Ft	77	47	30
Cinema/Entertainment		-	Screen(s)	0	0	0
Residential		417	Dwelling Unit(s)	191	118	73
Hotel		-	Room(s)	0	0	0
All Other Land Uses[2]		-	0	0	0	0
				268	165	103

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.00	0%	0%	1.00	0%	0%
Retail	1.00	0%	0%	1.00	0%	0%
Restaurant	1.00	0%	0%	1.00	0%	0%
Cinema/Entertainment	1.00	0%	0%	1.00	0%	0%
Residential	1.00	0%	0%	1.00	0%	0%
Hotel	1.00	0%	0%	1.00	0%	0%
All Other Land Uses[2]	1.00	0%	0%	1.00	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	5	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	7	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	268	165	103
Internal Capture Percentage	9%	7%	12%
External Vehicle-Trips[5]	244	153	91
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	15%	17%
Cinema/Entertainment	N/A	N/A
Residential	4%	10%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Residences at Capital Center
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	0	0	1.00	0	0
Restaurant	1.00	47	47	1.00	30	30
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	118	118	1.00	72.6	73
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	1	12		2	5	2
Cinema/Entertainment	0	0	0		0	0
Residential	3	31	15	0		2
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	1	0	5	0
Retail	0		14	0	54	0
Restaurant	0	0		0	19	0
Cinema/Entertainment	0	0	1		5	0
Residential	0	0	7	0		0
Hotel	0	0	2	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	0	0	0	0	0
Restaurant	7	40	47	40	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	5	113	118	113	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	0	0	0	0	0
Restaurant	5	25	30	25	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	7	66	73	66	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, ADOPTING A MITIGATED NEGATIVE DECLARATION AND APPROVING A MAJOR DESIGN REVIEW FOR THE RESIDENCES AT CAPITAL CENTER PROJECT NO. PLND-1221-0024

WHEREAS, Cole Partners., LLC, (hereinafter referred to as Applicant) filed an application with the City of Rancho Cordova for a Major Design Review approval for The Residences at Capital Center; and

WHEREAS, the City Council is the appropriate authority to hear and take action on this project; and

WHEREAS, the project is located at Kilgore Road between International Drive and White Rock Road and includes designs for a 177-unit Townhome development with small commercial component, as well as a 240-unit multi-family development; and

WHEREAS, an Initial Study/Mitigated Negative Declaration was prepared and circulated for the project in accordance with the California Environmental Quality Act (CEQA)(Public Resource Code Section 2100 et. seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et. Seq.);

WHEREAS, the City Council of the City of Rancho Cordova has conducted a properly noticed public hearing pursuant to Government Code section 65090 and has duly considered all written and verbal testimony presented during the hearing.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA HEREBY RESOLVES AS FOLLOWS:

1. The CEQA exemption found in California Code of Regulation Title 14, section 15183 (Consistent with the Community Plan, General Plan or Zoning) is an adequate exemption according to the Guidelines of the California Environmental Quality Act.

   A. **Finding**: The project has been analyzed in accordance with the California Environmental Quality Act (CEQA)(Public Resource Code Section 2100 et. seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et. Seq.),

   Evidence: In accordance with the California Environmental Quality Act (CEQA)(Public Resource Code Section 2100 et. seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et. Seq.), a Draft Initial Study/Mitigated negative Declaration (IS/MND) was prepared and circulated for the required 30-day review period, which ended on October 10, 2022. Areas identified in the Draft IS/MND that required mitigation measures (Exhibit C) to avoid significant effects on the environment include Biological Resources, Cultural and Tribal Cultural Resources, and Tribal Cultural Resources.

   During the public review period, six comment letters and/or emails on the Draft IS/MND were received from outside agencies and interested parties. As a result of comments received on the Draft IS/MND, minor revisions were made to the Draft IS/MND, however

there were no substantial revisions that would require recirculation of the document. The revisions proposed in the Final MND do not meet the criteria for recirculation provided in Section 15073.5(c) of the CEQA Guidelines, nor were project revisions required based upon the comments received.

2. Approval of the Major Design Review, subject to the Design Review Package (Exhibit A) and the Conditions of Approval (Exhibit B) must provide sufficient evidence for the Findings required by Zoning Code Section 23.141.070. Findings and supportive evidence are shown below:

   A. **Finding:** The proposed project is consistent with the objectives of the General Plan, complies with applicable zoning regulations, Specific Plan provisions, and special planning area provisions, and is consistent with the applicable Rancho Cordova Design Guidelines.

      Evidence: The design review is consistent with the objectives of both the Office Mixed Use (OMU) General Plan designation as well as the Office Professional Mixed Use (OPMU) zoning designation. Both designations encourage the integration of commercial and/or residential use in conjunction with an office use. The proposed project would add a large residential development with a small commercial component to the area which already includes a building with over 100,000 SF of office space as well as a recreational soccer field. This will create a combination of uses within close proximity that is consistent with the objective of the General Plan and Zoning Code and a design that is consistent with applicable Rancho Cordova Design Guidelines.

   B. **Finding:** The proposed architecture, site design, and landscape are suitable for the purposes of the building and the site and will enhance the character of the neighborhood and community.

      Evidence: The project proposes modern architecture with a variety of on-site amenities that are suitable for the proposed use and accommodate future residents of the property. The project also includes significant landscaping that benefits the visual streetscape of the site and encourages walkability, as well as a High Intensity Activated Crosswalk (HAWK) that will provide a safe mid-block crossing on Kilgore Road for all residents, enhancing the character as well as the safety of the surrounding neighborhood.

   C. **Finding:** The architecture, including the character, scale, and quality of the design, relationship with the site and other buildings, building materials, screening of exterior appurtenances, exterior lighting and signing, and similar elements establishes a clear design concept and is compatible with the character of existing or anticipated buildings on adjoining and nearby properties.

      Evidence: The project proposes two- and three-story buildings throughout the site with an overall modern-contemporary design, consistent with the design of adjacent office buildings and other structures within the OPMU zoning designation. The project utilizes materials, colors, and textures that are compatible with other existing and anticipated buildings in the area. The project must also adhere to all applicable regulations regarding outdoor lighting, signage, and screening as described within the Ranch Cordova Municipal Code.

D. **Finding:** The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

Evidence: The project encourages walkability through pedestrian connections both on-site and off-site of the property while also providing appropriate vehicular access and more than adequate on-site parking. In addition to enhanced circulation for residents, the project also provides three additional Emergency Vehicle Access (EVA) points to ensure that there is available ingress and egress points in case of an emergency.

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 21st day of November 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Donald Terry, Mayor

ATTEST:

_____
Stacy Leitner, CMC
City Clerk

THE RESIDENCES AT CAPITAL CENTER
TOWNHOMES AND MULTI-FAMILY

March 15, 2022

PROJECT DESCRIPTION

PROJECT OVERVIEW

Cole Partners Development Company and The Grupe Company are pleased to submit this development application to the City of Rancho Cordova Development Services Team (DST) on behalf of Property Owner, GGC Hwy 50, LLC, and its development affiliate, GGC Project Ventures, LLC. GGC Project Ventures is inclusive of principals from the following organizations:

- Cole Partners Development Company of Sacramento (www.colepartners.com), which include the principals that developed Zinfandel at Capital Center, comprising of 1.1 million square feet of office space in Rancho Cordova (www.colepartners.com/zinfandel-at-capital-center/),and a number of other notable developments throughout the Sacramento region.

- The Grupe Company of Stockton (www.grupe.com), one of the Central Valley's most prolific housing and multi-family developers.

- Guardian Capital of Carlsbad (www.guardian-capital.com), one of the most historically and currently active private equity investors and developers in the Western Region.

The Residences at Capital Center (the "Project") is envisioned as a modern mixed-use infill residential development with a destination commercial-retail component, promoting the ideals of "live, work and play" within Rancho Cordova's Capital Center – the commercial heart of the city, and the second largest office submarket in the region. The project sits on an approximately 23-acre site in Capital Center, south of the San Juan Soccer Club complex, in the northeast quadrant of Kilgore Road and International Drive.

The residential component is conceptualized as two separate residential projects acting as one community. The northern portion of the Project, adjacent to the San Juan Soccer Club, is proposed to include 177-units of contemporary two- and three-story townhomes for rent. The southern portion of the Project would include a Class A, 240-unit multi-family development. The contemporary look and feel of each of the two parts of the community, as well as thoughtfully planned landscaping, are intended to complement the existing office park and surroundings. A green space is planned at the center of the community, and wide pedestrian pathways and paseos will wind throughout the Project. Access at the south side of the Project to the City's pedestrian sidewalk system will tie into the existing Folsom South Canal bike path to the east (providing cyclists access to the American River Bike Trail and Lake Natoma to the north, and terminating at Cosumnes River to the south). A proposed pedestrian crosswalk on Kilgore Road would provide access to a City-contemplated pathway that would lead to Capital Village in the future.

The commercial-retail component of the project is situated on Kilgore Road, adjacent to the townhomes and south of the San Juan Soccer Club complex. This is envisioned to be a community oriented open-air food and beer garden concept; a place where patrons of all ages to enjoy food and drinks in a comfortable and relaxed outdoor space. This concept is intended as a draw for a wide range of people who live, work and recreate in the area. Although it will offer ample parking, the commercial site will also be easily accessed by pedestrian walkways and bike paths, encouraging alternative forms of transportation.

PROJECT OBJECTIVES

- Develop a high-quality walkable rental community on an infill site at Capital Center.
- Design a community that is complementary in look and feel to the existing office park through attractive modern architectural design and landscaping.
- Provide an open-air, community-oriented commercial space proximate to the proposed residential but also the existing office park and soccer facilities.
- Provide more diverse rental housing opportunities in an infill location that is proximate to prominent employment and retail nodes that promotes walking and cycling as alternatives to driving, as well as a "live-work-play" environment.
- Take advantage of pedestrian and cycling connectivity opportunities through improved utilization of existing Rancho Cordova infrastructure. Promote increased cycling and between the Project and nearby amenities, shopping at Capital Village, office buildings at Capital Center and Prospect Park, and the Folsom South Canal Recreational Trail.

BACKGROUND

The principals of Cole Partners developed approximately 1.1 million square feet of office product at Capital Center between the mid-1990s through 2003. (www.colepartners.com/zinfandel-at-capital-center/) Since that time, Cole Partners has sought to develop additional office or medical office on its remaining ~28 acres at the intersection of International Drive and Kilgore Road. However, during that time, which included two market cycles, it has become evident that our market has gone through a paradigm shift. Today it is clear that the need for housing in Rancho Cordova and the greater Sacramento region far outstrips the demand for new office buildings. In fact, it has been nearly 15 years since a new privately developed office building was completed in Rancho Cordova (at Mather), and nearly 12 years since the principals at Cole Partners last delivered new office buildings on the Highway 50 Corridor (Waste Connections (now SAFE Credit Union) and Numonyx (now Micron Technology), both in Folsom). For those familiar with our region's office market, it is not surprising that those two buildings were the last two privately developed larger suburban office buildings completed along the Highway 50 Corridor.

The Highway 50 Corridor, of which Rancho Cordova is a critical part, is the region's second largest office submarket behind downtown Sacramento based on existing office space square footage –

making Rancho Cordova one of the area's top employment centers. However, reflective of the greater Sacramento market, the Highway 50 Corridor has been experiencing negative absorption and has the highest vacancy rate of any of the major submarkets at 14.5% according to real estate brokerage, Newmark. According to both CoStar and Newmark, the Sacramento market experienced 700,000 square feet of net negative absorption in 1Q 2021 – the worst quarter in 15 years. The largest move-out was by Phillips (formerly Volcano) located in Prospect Park. Also of concern, we know and/or understand other large companies and government agencies are likely to consolidate or shrink their presence in the submarket, to include Delta Dental, VSP, the State of California and others. At the same time (on a positive note) in recent years, we have seen some new tenants backfill and retrofit existing space in the submarket because it is generally far more cost effective than building new; prime examples include Blue Shield of California (at 3300 Zinfandel) and UC Davis Health (on White Rock Road).

But while the demand for newly developed office product has dropped steeply, the need for new and more diverse types of housing has risen dramatically. And we believe those two trends are intertwined relative to the future health of Rancho Cordova's office market.

In today's market and going forward, we strongly believe great housing will play a critical role in the vitality of top employment centers such as Rancho Cordova, and will help the City both attract and retain its top employers. Why? Because housing is a key factor for both employers and employees and their families who contemplate moving into and/or staying in certain locations.

The Residences at Capital Center is designed in large part to address the types of housing options employers and employees and their families are seeking today: A smartly designed and highly amenitized modern housing development situated in a prime infill and walkable location – the heart of Capital Center.

SITE DETAILS

The proposed Project is located on an approximately 22-acre site, east of Kilgore Road, and north of International Drive in the City of Rancho Cordova, CA (APNs 072-0260-051, -054, -056; 072-0680-065, -068). The proposed Project will have a total of 417 units comprised of 240 multifamily units, 177 townhome rental units, and approximately 4,500 square feet of commercial. The overall Project will have a parking ratio of 2.20 stalls per unit.

The multi-family portion of the community is located on ±9 acres immediately east of the existing Delta Dental building at the northeast corner of Kilgore Road and International Drive. This site would include a ±7,000 square foot, two-story clubhouse with pool and fitness center. Outdoor amenity areas would include a dog park, barbeque, and lounge areas. The clubhouse will feature a large deck area that runs contiguous to a pool and a large community lawn area for residents to congregate and socialize. There will be nine (9), 3-story garden style walk- up apartment buildings for a total of 240 units.

The townhomes portion of the community is located on ±12 acres just south of the San Juan Soccer Club complex on the northern portion of the Project site. This will include 149 three-story townhome units and 28 two-story townhome units. Each unit will include a two-car garage. Depending on the unit type, each of the three-story units will feature large patios, or lanais, located either off the kitchen or great room, or the master bedroom. Meanwhile, the two-story units will offer residents

enclosed backyards with wood fences. The townhomes portion of the community will also have a ±7,000 square foot single-story clubhouse with pool and fitness center. Outdoor amenity areas would include a pool/spa, children's playground, dog park, and barbeque and lounge areas.

The conceptualized commercial component is envisioned as a predominantly open-air space. It would be located on ±1 acres on the northwest corner of the Project site, and would be accessible by motor vehicles via the shared access drive with San Juan Soccer. The proposed commercial would have approximately ±4,500 square feet of building area with ±8,800 square feet of outdoor area. The planned open space is designed to buffer the townhomes' clubhouse parking lot from the commercial.

ARCHITECTURE

The architectural style is modern-contemporary designed to bring a fresh modern look and feel to Rancho Cordova. Building materials will consist of stucco, dark metals, and wood tiling. The white stucco is to give a modern look while the wood tiling complements the surrounding landscaping.

VEHICLE ACCESS

Primary vehicle access to the Project will be from three points off Kilgore Road. The entrance for the commercial portion will use the existing drive to the San Juan Soccer Club to the North. The entrance to the townhomes will be through a grand promenade entrance south of the commercial portion. Access to the multi-family project will be through the tree-lined Crawford Drive, an existing private road located just north of the Delta Dental building on the NEC of Kilgore and International. The Project will have an EVA located on north side of Crawford Drive just east of Kilgore, and another EVA located on International Drive just east of the Delta Dental building.

PEDESTRIAN & BICYCLE CIRCULATION

A major consideration of the site layout was providing pedestrian connectivity within the Project and to the surrounding office buildings, soccer facility, trails and nearby retail at Capital Village. The northern most portion of the townhome and commercial site includes a walking path that circulates through the entire Project site. At the south end of the site, access to the City's sidewalk system on International Drive leads to the existing bike path along the Folsom South Canal. A proposed pedestrian crosswalk on Kilgore Road would provide a possible connection to a City-contemplated pathway to Capital Village, terminating at the retail center.

LANDSCAPING

The proposed landscape for the Project has been designed to complement the various walking and biking paths throughout the Project. The landscape will be mindfully selected to enhance the earth toned architecture. The terrace walks between the townhomes will provide green space as residents walk through the project. The promenade entrance and various green spaces have been designed with space for enhanced landscaping.

LOT LINE ADJUSTMENT

The proposed project will prepare a lot line adjustment, under a separate application, to reconfigure the existing four parcels to create individual parcels for the apartment project, townhomes project, commercial project, and clubhouse area for the townhome project. The apartment parcel would be approximately 9 acres, the townhomes would be 10 acres, the commercial project would be 1 acre and the clubhouse for the townhomes another 2 acres.

EASEMENTS

There are two easements that will need to be quitclaimed as part of the project. One is an old 10' SMUD easement off Kilgore Road and the second one is an old 15' sewer easement off of International Road. Both are not needed for this development and impede the proposed project.

THE RESIDENCES AT CAPITAL CENTER

RANCHO CORDOVA, CA

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A0.05 - OVERALL SITE VIGNETTES
A0.06 - SITE VIGNETTES
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A0.00
COVER SHEET
THE RESIDENCES AT CAPITAL CENTER
Rancho Cordova, CA

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PROJECT SUMMARY

SITE GROSS AREA	+/- 22.811 ac
GRAND TOTAL UNITS	417 units
DENSITY	+/- 18.28 du/ac
GRAND TOTAL PARKING	939 spaces
PARKING RATIO	+/- 2.25
FUTURE INDOOR-OUTDOOR RESTAURANT WITH PATIO AND YARD	1.083 ac
COMMERCIAL PARKING	52 spaces

TOWNHOMES SUMMARY

TOTAL UNITS	177 units
GARAGES	354 spaces
SURFACE PARKING	103 spaces
TOTAL PARKING	457 spaces
RATIO	+/- 2.58

APARTMENT SUMMARY

TOTAL UNITS	240 units
CARPORT	240 spaces
SURFACE PARKING	190 spaces
TOTAL PARKING	430 spaces
RATIO	+/- 1.79

1 Fire Access Lanes with NO PARKING FIRE LANE painted on red curb

2 Promenade Entrance

3 Club House Entry

4 Townhomes Clubhouse
Leasing Office
+/- 7,200 sf.
1 Story
Fitness, Pool, Spa

5 Future Indoor-Outdoor Restaurant with Patio and Yard
+/- 1.083 ac
+/- 4,999 sf Building Coverage
+/- 8,800 sf Outdoor Seating

6 Townhomes
+/-12.96 ac
13.65 du/ac
177 Units Front loaded & Rear loaded
2.58 Parking Ratio

7 Open Space

8 Internal Pedestrian Walkway

9 Apartments
Main Entry

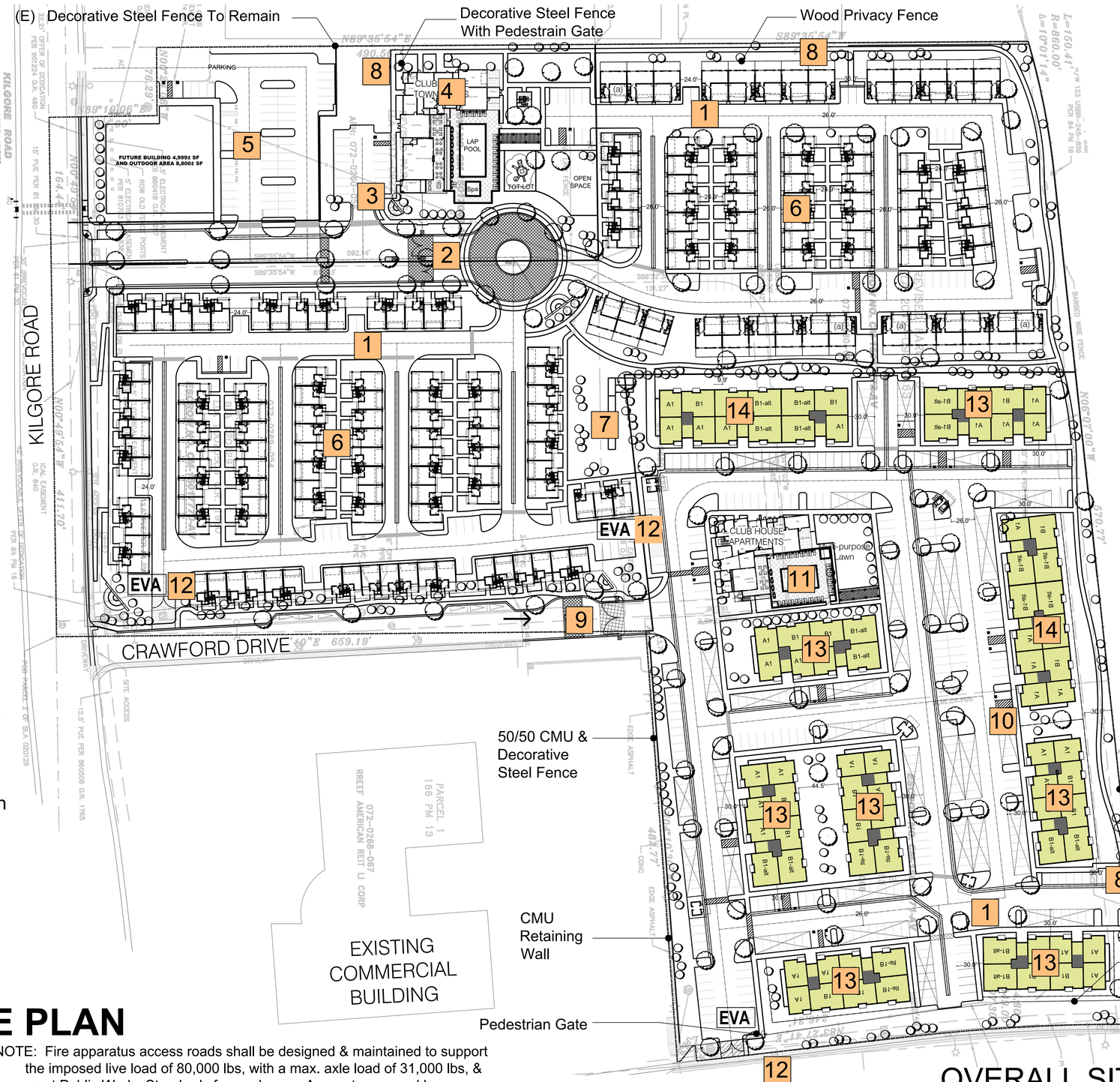
10 Apartments
+/-8.769 ac
27.369 du/ac
240 units
24plex & 36plex
1.79 parking ratio

11 Apartments Clubhouse
Leasing office
Fitness
+/- 7,400 sf.
2 story

12 Emergency Vehicular Access

13 Apartments - Bldg A
24plex
3 Story

14 Apartments - Bldg B
36 plex
3 Story



OVERALL SITE PLAN

0 60' 120' 240'
Scale: 1" = 60' (on 24x36 sheet)

NOTE: Fire apparatus access roads shall be designed & maintained to support the imposed live load of 80,000 lbs, with a max. axle load of 31,000 lbs, & meet Public Works Standards for roadways. A report, prepared by a registered geotechnical engineer, verifying the ability of the road to bear the required minimum weight, shall be submitted with any plan indicating construction of roadway. Verification of constructed roadway shall be provided by a registered geotechnical engineer prior to final of the project.

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A0.01

OVERALL SITE PLAN

THE RESIDENCES AT CAPITAL CENTER

Rancho Cordova, CA

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1 Apartments Main Entry

2 Apartments Clubhouse
Leasing office
Fitness
+/- 7,400 sf.
2 story

3 Emergency
Vehicular Access

4 Internal Pedestrian
Walkway

5 Apartments
Bldg A
- 24-plex bldg
- 3 Story Bldg.

6 Apartments
Bldg B
- 36-plex bldg
- 3 Story Bldg.

7 Trash Enclosure
(Typ.)

8 Landscape Feature

9 Open Space

10 Carports (Typ.)

APARTMENTS SUMMARY

GROSS AREA	+/- 8.769	ac
TOTAL UNITS	240	units
DENSITY	27.769	du/ac

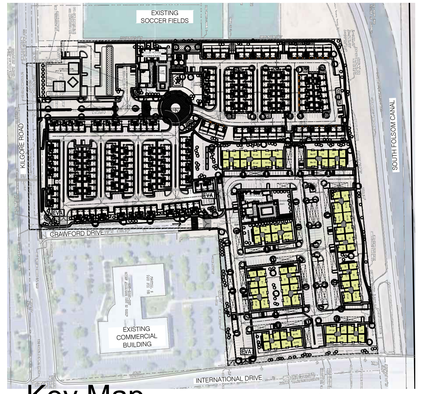
Product Summary

Plan A1 - 1BR	114 units (47.5%)
Plan B1 - 2BR	126 units (52.5%)
Total	240 units (100%)

Parking Summary

Parking Provided:	430 spaces (1.79 ratio)

NOTE: Proposed property location, boundary lines, and shape of the parcel shown in this study are for graphic reference only and may be subject to change pending on owner's final surveying map.



Key Map Scale: 1"=250'

ENLARGED SITE PLAN

0 40' 80' 160''
Scale: 1" = 40' (on 24x36 sheet)

North

A0.02

SITE PLAN - APARTMENTS 240 UNITS

THE RESIDENCES AT CAPITAL CENTER

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1 Project Main Entry

2 Townhomes Main Entry
Promenade Entrance

3 Clubhouse Entry

4 Townhomes Clubhouse
+/- 7,200 sf.
- Leasing Office
- 1 Story
- Fitness
- Pool, Spa

5 Future Indoor-Outdoor Restaurant with Patio and Yard
+/- 1.083 ac
+/- 4,999 sf Building Coverage
+/- 8,800 sf Outdoor Seating

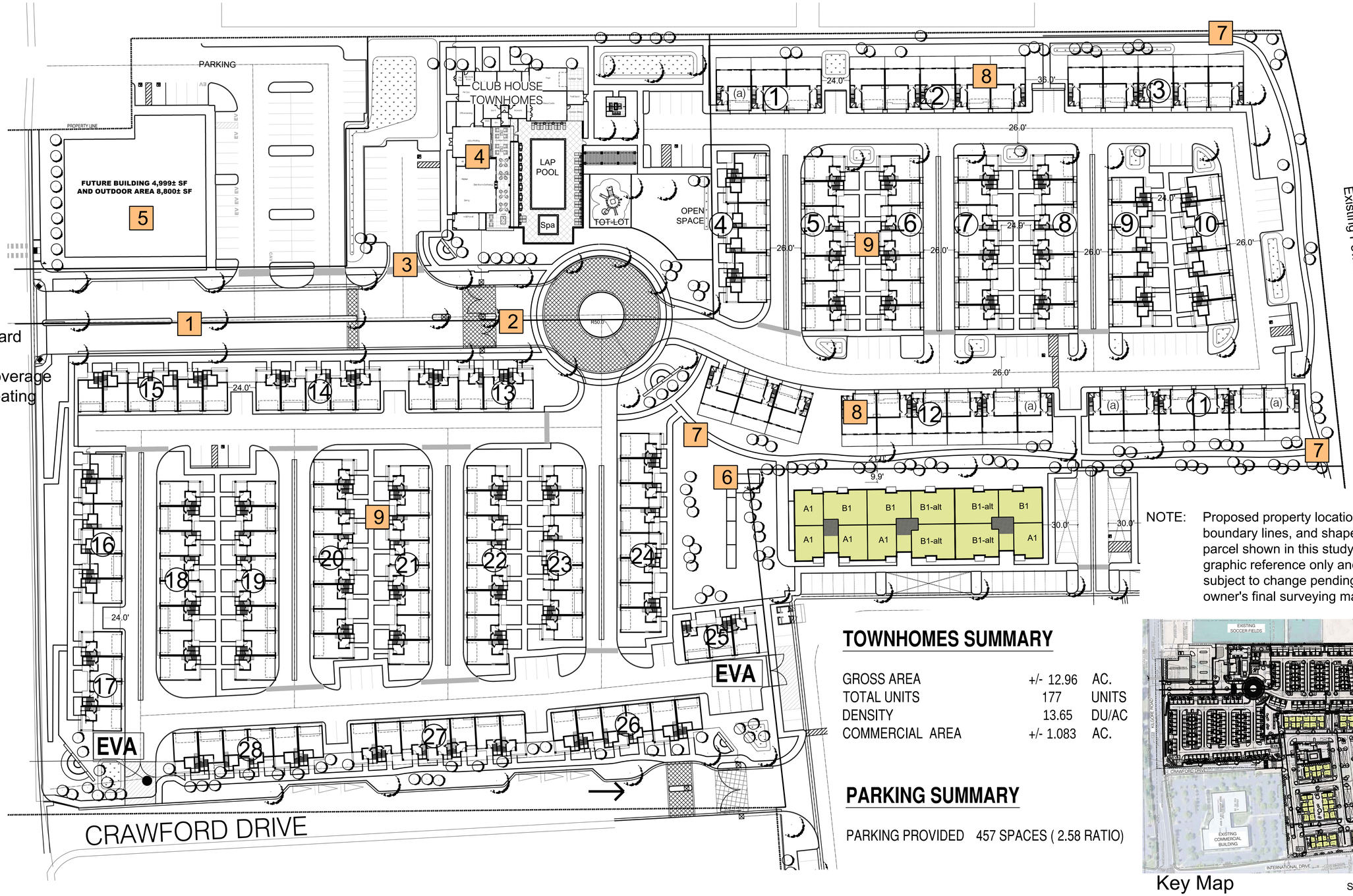
6 Open Space

7 Internal Pedestrian Walkway

8 Townhomes
Type A (typ.)
- Front-loaded
- 3,5, 6 & 8-plex

9 Townhomes
Type B (typ.)
- Rear-loaded
- 3,4,5, 6, 7 & 8-Plex

10 Emergency Vehicular Access



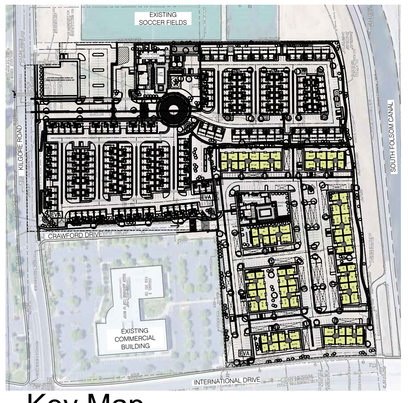
NOTE: Proposed property location, boundary lines, and shape of the parcel shown in this study are for graphic reference only and may be subject to change pending on owner's final surveying map.

TOWNHOMES SUMMARY

GROSS AREA	+/- 12.96	AC.
TOTAL UNITS	177	UNITS
DENSITY	13.65	DU/AC
COMMERCIAL AREA	+/- 1.083	AC.

PARKING SUMMARY

PARKING PROVIDED 457 SPACES (2.58 RATIO)



Key Map

Scale: 1"=250'

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ENLARGED SITE PLAN

0 40' 80' 160''
Scale: 1" = 40' (on 24x36 sheet)

North

A0.03

SITE PLAN - TOWNHOMES 177 UNITS

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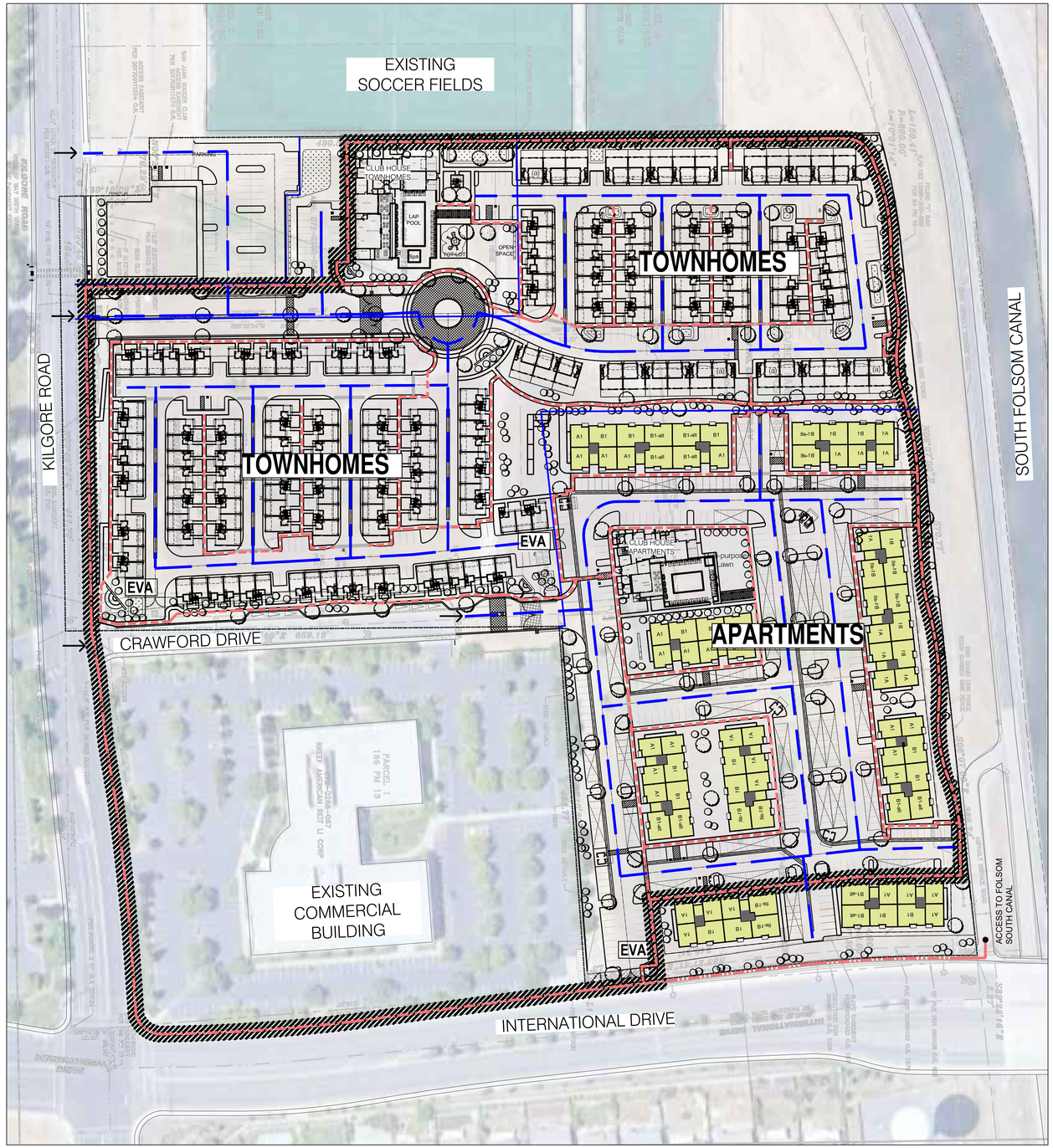
SITE LEGEND

- ENTRANCE
- EVA — EMERGENCY VEHICLE ACCESS ONLY
  PROVIDE KNOX BOX, PER LOCAL GUIDELINES
- PEDESTRIAN PATH OF TRAVEL
- VEHICULAR PATH OF TRAVEL
- WALKING LOOP
  +/- 4,400 FEET (0.85 MILES)



OVERALL SITE PLAN

Scale: 1" = 80' (on 24x36 sheet)

North

A0.04

OVERALL CIRCULATION PLAN

THE RESIDENCES AT CAPITAL CENTER

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SITE LEGEND

- PEDESTRIAN PATH OF TRAVEL
- BIKE TRAILS
- CONNECTION TO BIKE TRAIL

North

Scale: 1" = 200' (on 24x36 sheet)

A0.04A

ADJACENCY CIRCULATION PLAN

THE RESIDENCES AT CAPITAL CENTER

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DRIVEWAY ENTRY TO APARTMENTS CLUBHOUSE - 3

TOWNHOMES & CLUBHOUSE - 2

DRIVEWAY TO APARTMENTS - 4

DRIVEWAY ENTRY TO
TOWNHOME CLUBHOUSE - 1

KEY SITE

ENTRY VIGNETTES

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SITE VIGNETTES
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TOWNHOMES PASEO - 4

TOWNHOMES DRIVE ASLE - 3

APARTMENTS COVERED PARKING - 2

KEY SITE

CLUBHOUSE & APARTMENTS - 1

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A0.06

SITE VIGNETTES

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RANCHO CORDOVA TOWNHOMES — 6/8/2022

SITE INFORMATION		
TOTAL SITE AREA	12.96	AC
TOTAL UNITS	177	UNITS
DENSITY	**13.65**	**du/ac**

TOWNHOME SUMMARY

SUMMARY	# of Bldg	PLAN B1 2 BR, 2-CAR	PLAN B2 2 BR, 2-CAR	PLAN B3, 3 BR, 2-CARS	PLAN C1 3-BR, 2-CAR	PLAN C2 2-MBR, 2-CAR	PLAN C3 2-MBR,2-CAR	Total
TOWNHOME BUILDING BA - Front -loaded - 3 Plex		1	1	1				3
Total	**2**	**2**	**2**	**2**				**6**
TOWNHOME BUILDING BB - Front -loaded - 5 Plex		1	2	2				5
Total	**2**	**2**	**4**	**4**				**10**
TOWNHOME BUILDING BC - Front-loaded - 6 Plex		2	2	2				6
Total	**2**	**4**	**4**	**4**				**12**
TOWNHOME BUILDING CA - Rear-loaded - 3 Plex						2	1	3
Total	**1**					**2**	**1**	**3**
TOWNHOME BUILDING CB - Rear-loaded - 4 Plex						2	2	4
Total	**1**					**2**	**2**	**4**
TOWNHOME BUILDING CC - Rear-loaded - 5 Plex						2	3	5
Total	**1**					**2**	**3**	**5**
TOWNHOME BUILDING CD - Rear-loaded - 6 Plex					1	2	3	6
Total	**6**				**6**	**12**	**18**	**36**
TOWNHOME BUILDING CE - Rear-loaded - 7 Plex					2	2	3	7
Total	**11**				**22**	**22**	**33**	**77**
TOWNHOME BUILDING CF - Rear-loaded - 8 Plex					1	3	4	8
Total	**3**				**3**	**9**	**12**	**24**
TOTAL								
Total	**29**	**8**	**10**	**10**	**31**	**49**	**69**	**177**
Percentage		4.5%	5.6%	5.6%	17.5%	27.7%	39.0%	100%
		18		41		118		177
Percentage		10.2%		23.2%		66.7%		100%

Clubhouse Area	+/-7,200 SF
Clubhouse Parking	16
Surface Parking	87
Garage Parking	354
Total Spaces	**457**
Parking Ratio	2.58 Space Unit

TOWNHOMES PARKING STATISTICS		
Unit Type	**No. of Units**	**Provided Spaces**
2 Bedroom	136	272
3 Bedroom	41	82
Guest	177	103
Total Spaces		**457**
Parking Ratio		**2.58**

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A0.10

PROJECT SUMMARY - TOWNHOMES SUMMARY

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RANCHO CORDOVA APARTMENTS 6/8/2022

SITE INFORMATION		
TOTAL SITE AREA	8.769 AC	
TOTAL UNITS	240 UNITS	
DENSITY	**27.37**	**du/ac**

APARTMENTS SUMMARY

BUILDING SUMMARY		1-Bdrm	2-Bdrm	2-Bdrm	Total
		A1	B1	B1-alt	
3-story Building - BUILDING TYPE A - 24 PLEX					
Total		12	6	6	24
Percentage per unit type		50.0%	25.0%	25.0%	100%
3-story Building - BUILDING TYPE B - 36PLEX					
Total		15	9	12	36
Percentage per unit type		41.7%	25.0%	33.3%	100%
	# of Bld Total				
3-story Building - BUILDING TYPE B - 24 PLEX	7	84	42	42	168
3-story Building - BUILDING TYPE B - 36 PLEX	2	30	18	24	72
Total		114	60	66	240
Percentage per unit type		47.5%	25.0%	27.5%	100%

Clubhouse Area	+/-7,400 SF
Surface Covered Parking	240
Surface Uncovered Parking	190
Total Spaces	**430**
Parking Ratio	1.79 Space Unit

APARTMENT PARKING SUMMARY

Unit Type	No. of Units	Provided Spaces
A1 - 1 Bedroom	114	114
B1 and B1- Alt - 2 Bedroom	126	126
Guest	240	190
Total Spaces		**430**
Parking Ratio		1.79

UNIT MIX

Unit	Unit Type	Unit Loc.	Net Unit Area*	Balcony + WH Closet	Gross Unit Area	Quantity	Total (Gross Unit)	Total (Net Unit)
A1-TYPE A	1 br/1 ba	Interior	715	60	775	114	88,350	81,510
B1-TYPE A	2 br/2 ba	Interior	989	62	1,051	60	63,060	59,340
B1-Alt-TYPE A	2 br/2 ba	Interior	1,047	62	1,109	66	73,194	69,102
					Total	**240**	**224,604**	**209,952**
	Average unit size						935.85	874.80

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A0.11

PROJECT SUMMARY - APARTMENT SUMMARY

THE RESIDENCES AT CAPITAL CENTER

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Front Elevation

Scale: 3/16" = 1'-0"

Front Perspective

Scale: NTS

Left Elevation

Scale: 3/16" = 1'-0"

EXTERIOR ELEVATIONS

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A1.10

APARTMENTS - BUILDING A1 - 24 PLEX

THE RESIDENCES AT CAPITAL CENTER

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Rear Elevation

Scale: 3/16" = 1'-0"

Rear Perspective

Scale: NTS

Right Elevation

Scale: 3/16" = 1'-0"

EXTERIOR ELEVATIONS

A1.11

APARTMENTS - BUILDING A1 - 24 PLEX

THE RESIDENCES AT CAPITAL CENTER

Rancho Cordova, CA

GRUPE

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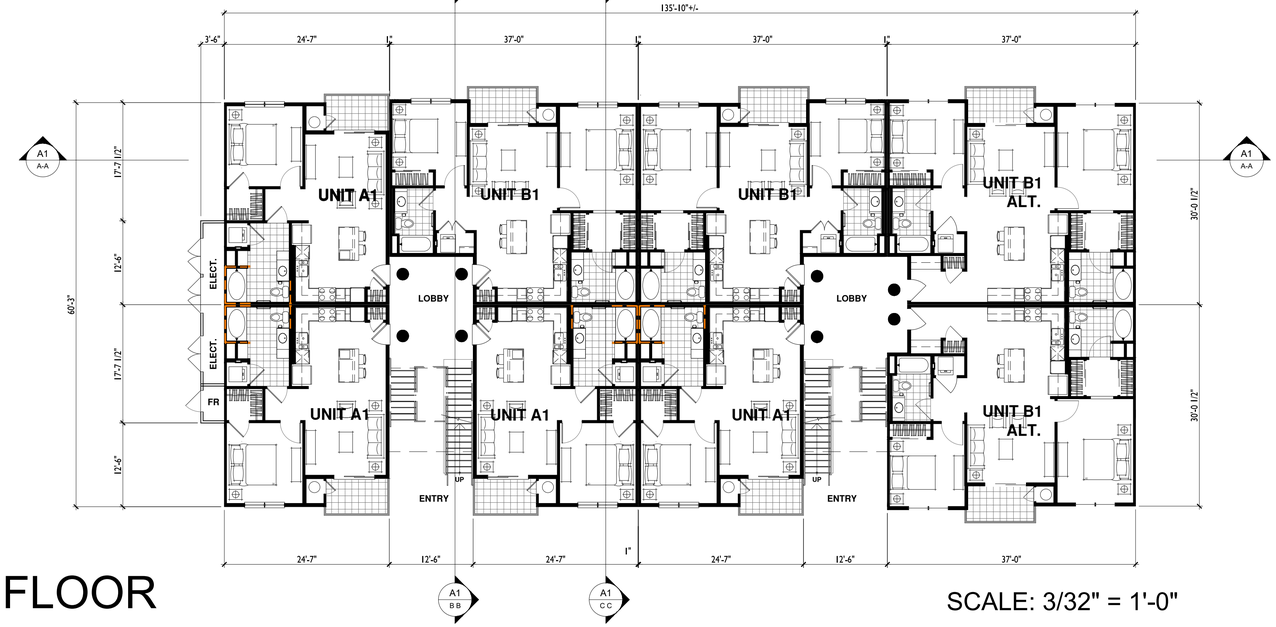
SECOND & THIRD FLOOR

SCALE: 3/32" = 1'-0"



FIRST FLOOR

SCALE: 3/32" = 1'-0"

24-Plex
Overall Square Footage:

1st Floor	8,288 SF
2nd Floor	8,079 SF
3rd Floor	7,710 SF
Gross Total	24,077 SF

Unit Mix:

A1:	12 units
B1:	6 units
B1-alt:	6 units
Total:	24 units

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A.1.12

APARTMENTS - BUILDING A1 24 PLEX - FLOOR PLANS

THE RESIDENCES AT CAPITAL CENTER

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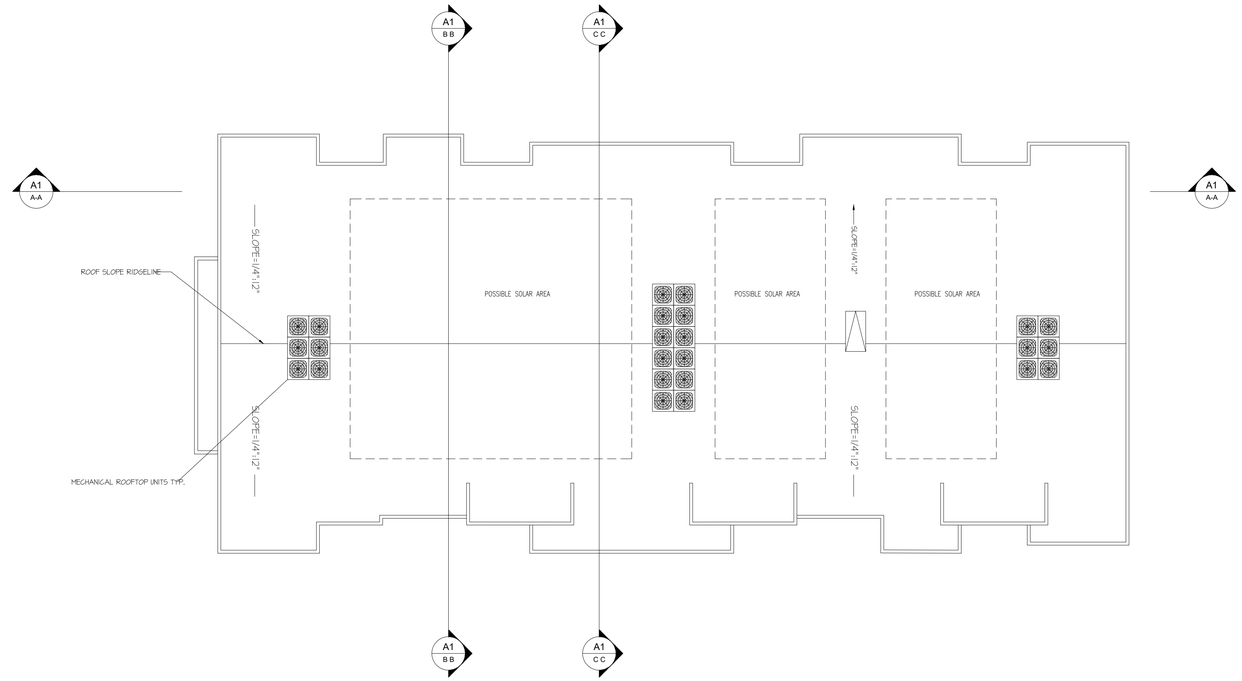

ROOF PLANS

SCALE: 3/32" = 1'-0"

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A1.13

APARTMENTS - BUILDING A1 24 PLEX- ROOF PLANS

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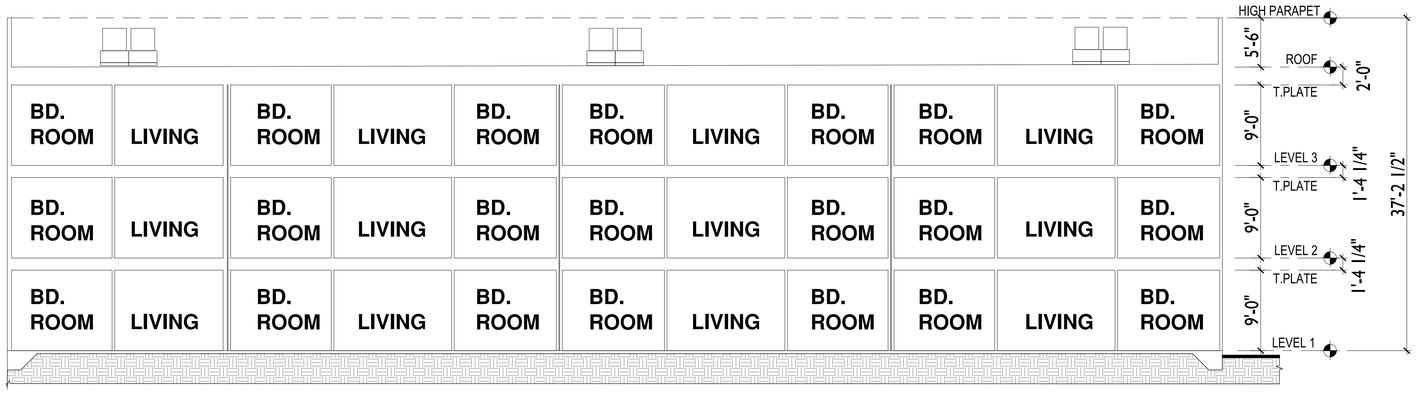
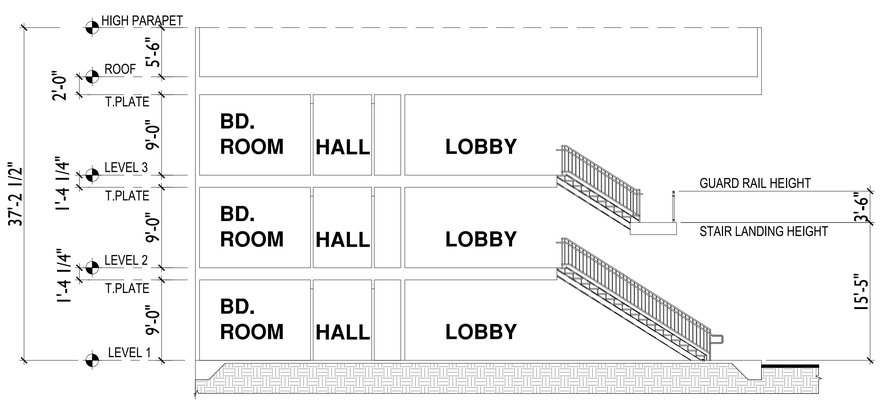
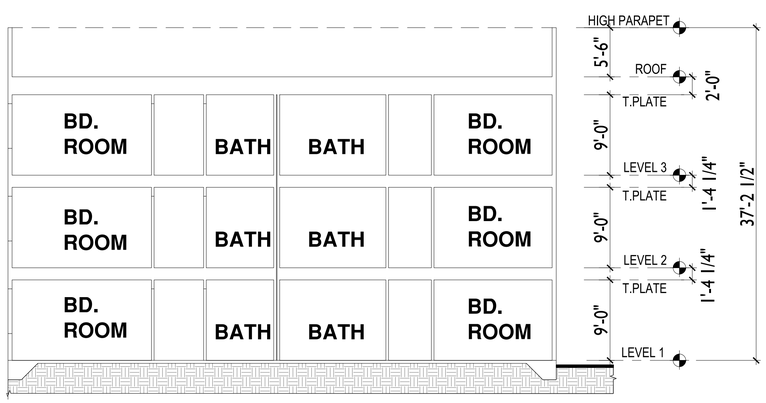


SECTION A1 - A A



SECTION A1 - B B



SECTION A1 - C C

SCALE: 1/8" = 1'-0"

A1.14

APARTMENTS - BUILDING A1 24 PLEX - SECTIONS

THE RESIDENCES AT CAPITAL CENTER

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Front Elevation

Front Perspective

Scale: NTS

Left Elevation

EXTERIOR ELEVATIONS

Scale: 1/8" = 1'-0"

A1.20

APARTMENTS - BUILDING A2 - 36 PLEX

THE RESIDENCES AT CAPITAL CENTER

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Rear Elevation

Rear Perspective

Scale: NTS

Right Elevation

EXTERIOR ELEVATIONS

Scale: 1/8" = 1'-0"

A1.21

APARTMENTS - BUILDING A2 - 36 PLEX

THE RESIDENCES AT CAPITAL CENTER

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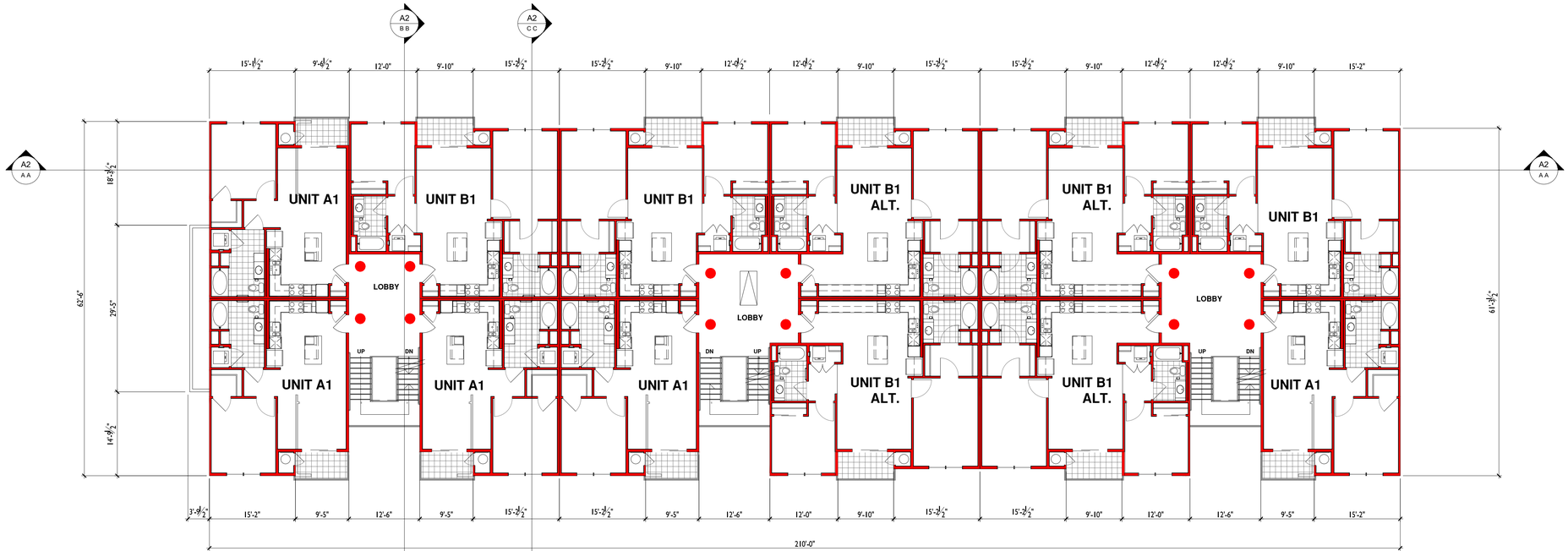
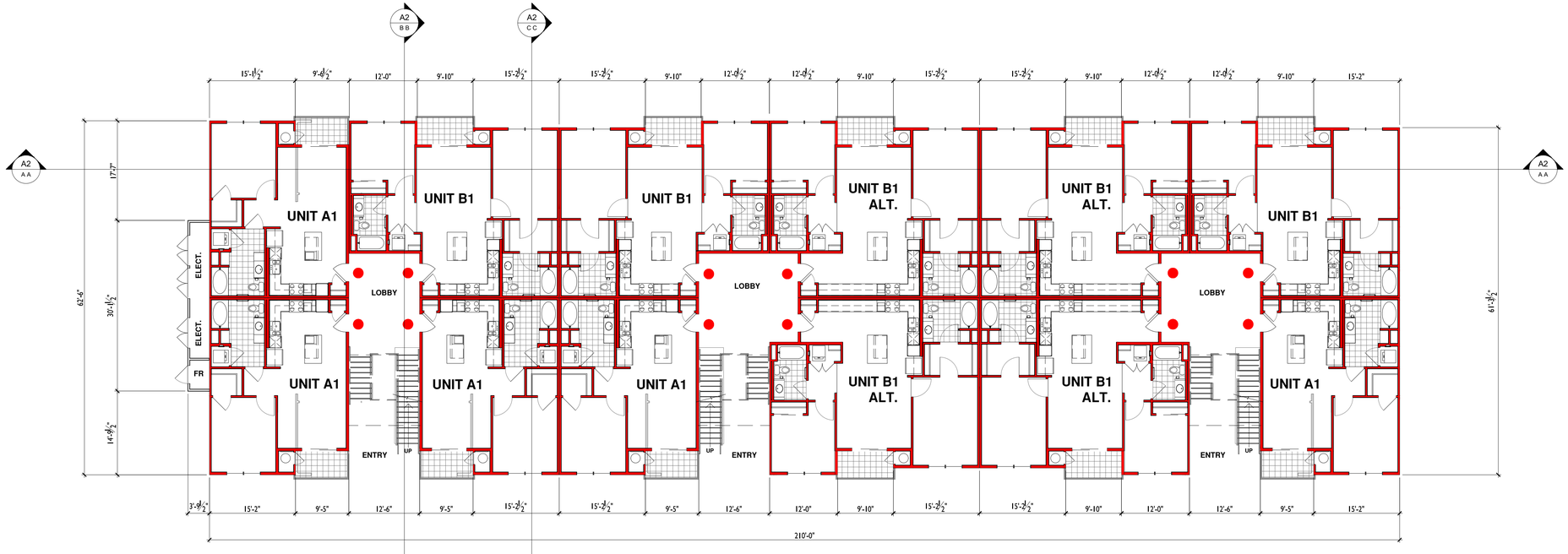


SECOND & THIRD FLOOR

SCALE: 3/32" = 1'-0"



FIRST FLOOR

SCALE: 3/32" = 1'-0"

36-Plex
Overall Square Footage:
1st Floor 12,687 SF
2nd Floor 12,478 SF
3rd Floor 11,923 SF
Gross Total 37,088 SF

Unit Mix:
A1: 15 units
B1: 9 units
B1-alt: 12 units
Total: 36 units

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A.1.22

APARTMENTS - BUILDING A2 36 PLEX - FLOOR PLANS

THE RESIDENCES AT CAPITAL CENTER

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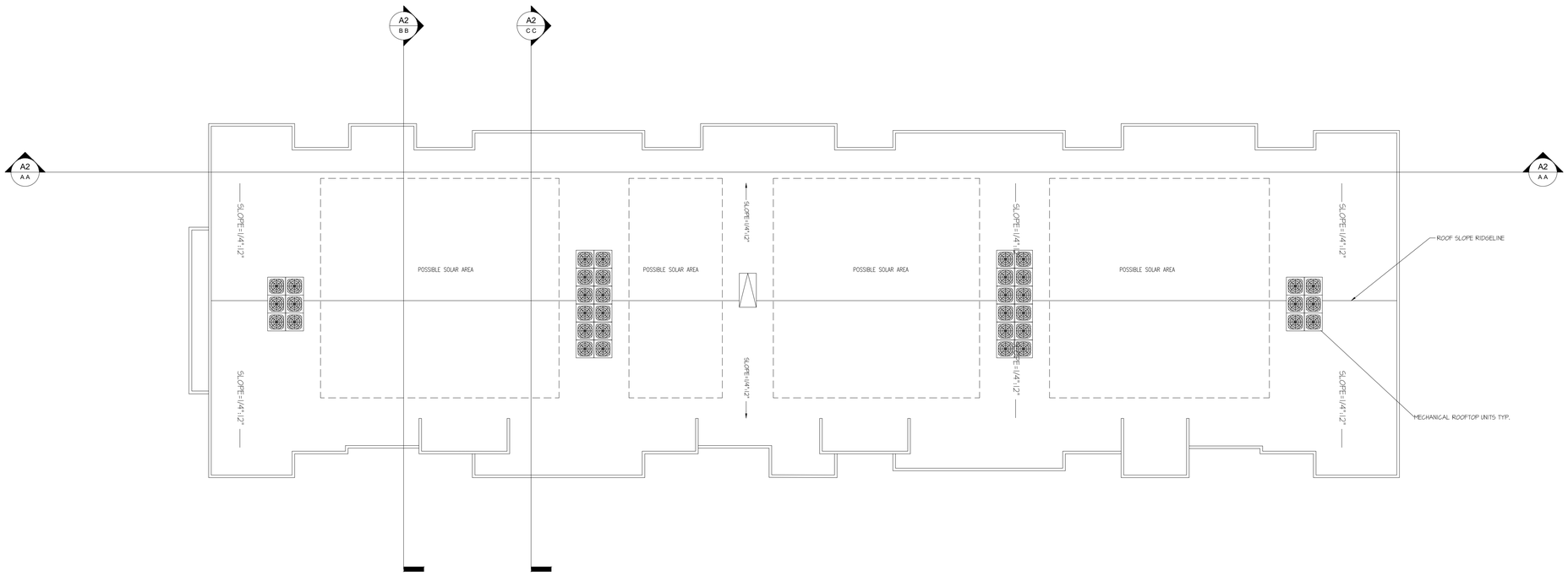

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ROOF PLAN

SCALE: 3/32" = 1'-0"

A.1.23

APARTMENTS - BUILDING A2 36 PLEX - ROOF PLAN

THE RESIDENCES AT CAPITAL CENTER

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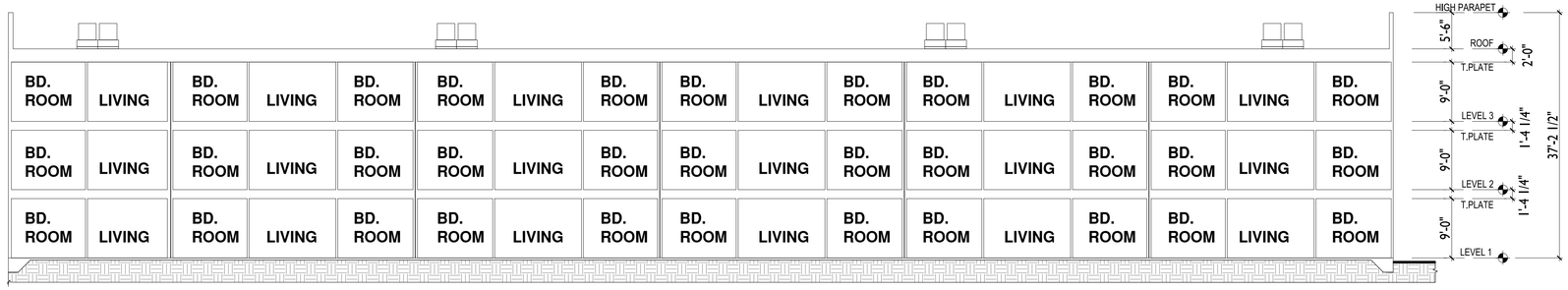
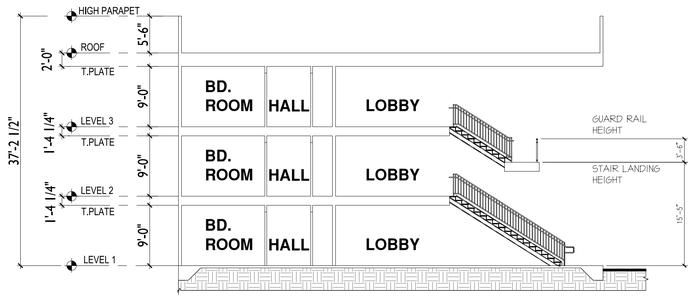
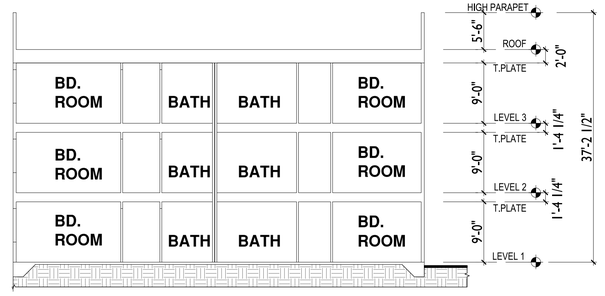


SECTION A2 - A A



SECTION A2 - B B



SECTION A2 - C C

SCALE: 3/32" = 1'-0"

A.1.24

APARTMENTS - BUILDING A2 36 PLEX - SECTIONS

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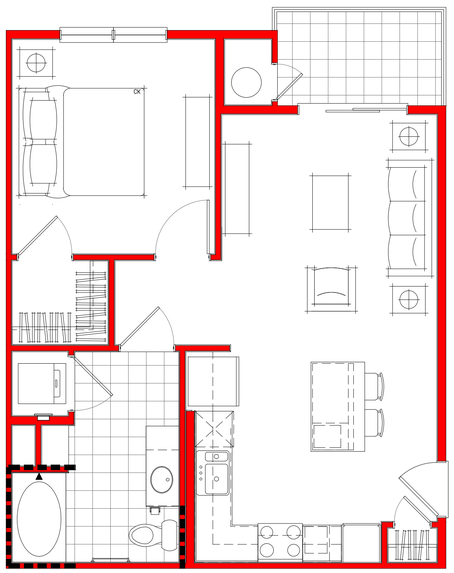
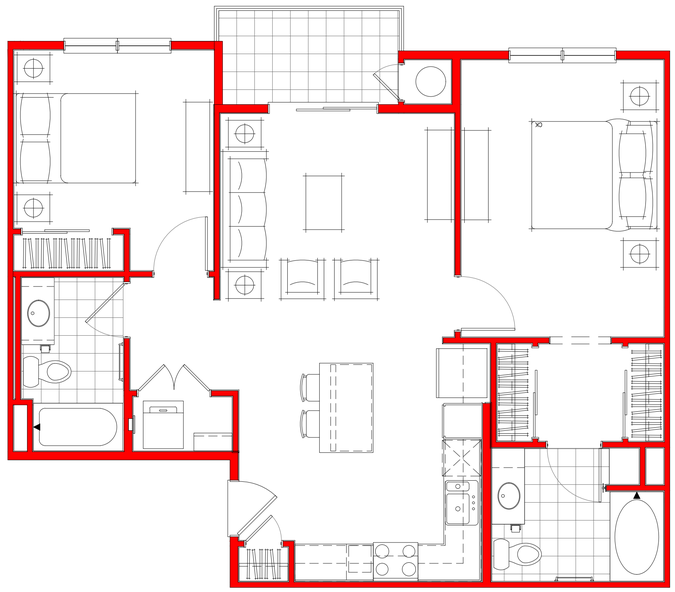
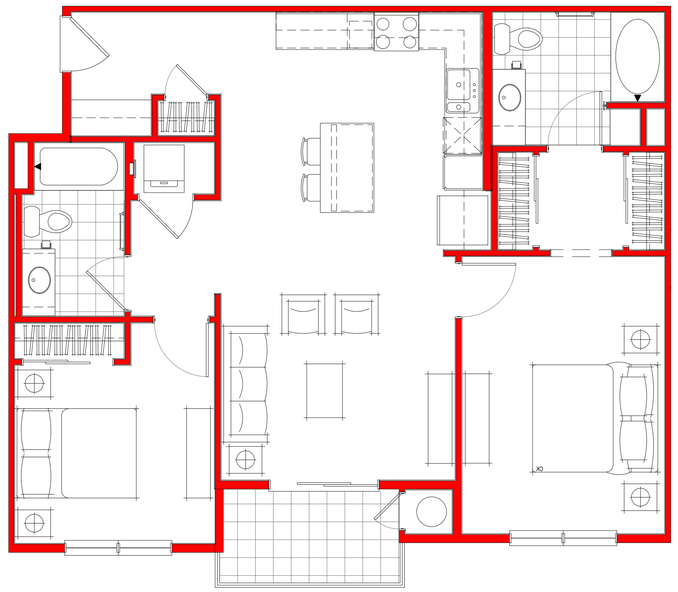


UNIT TYPE - A1



UNIT TYPE - B1



UNIT TYPE - B1 ALT.

UNIT MIX	Unit	Unit Type			Unit Loc.	Net Unit Area*	Balcony + WH Closet	Gross Unit Area	Quantity	Total (Gross Unit)	Total (Net Unit)
	A1-TYPE A	1 br/1 ba			Interior	715	60	775	114	88,350	81,510
	B1-TYPE A	2 br/2 ba			Interior	989	62	1,051	60	63,060	59,340
	B1-Alt-TYPE A	2 br/2 ba			Interior	1,047	62	1,109	66	73,194	69,102
		Total							**240**	**224,604**	**209,952**
		Average unit size								**935.85**	**874.80**

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ENLARGED UNIT PLANS

SCALE: 1/4" = 1'-0"

A.1.30

APARTMENTS - ENLARGED UNIT PLANS

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SECOND FLOOR

FIRST FLOOR

TOTAL FLOOR AREA: +/-7,378 S.F.

Scale: 1/8" = 1'-0"

A1.50

APARTMENTS CLUBHOUSE - FIRST AND SECOND FLOOR PLAN

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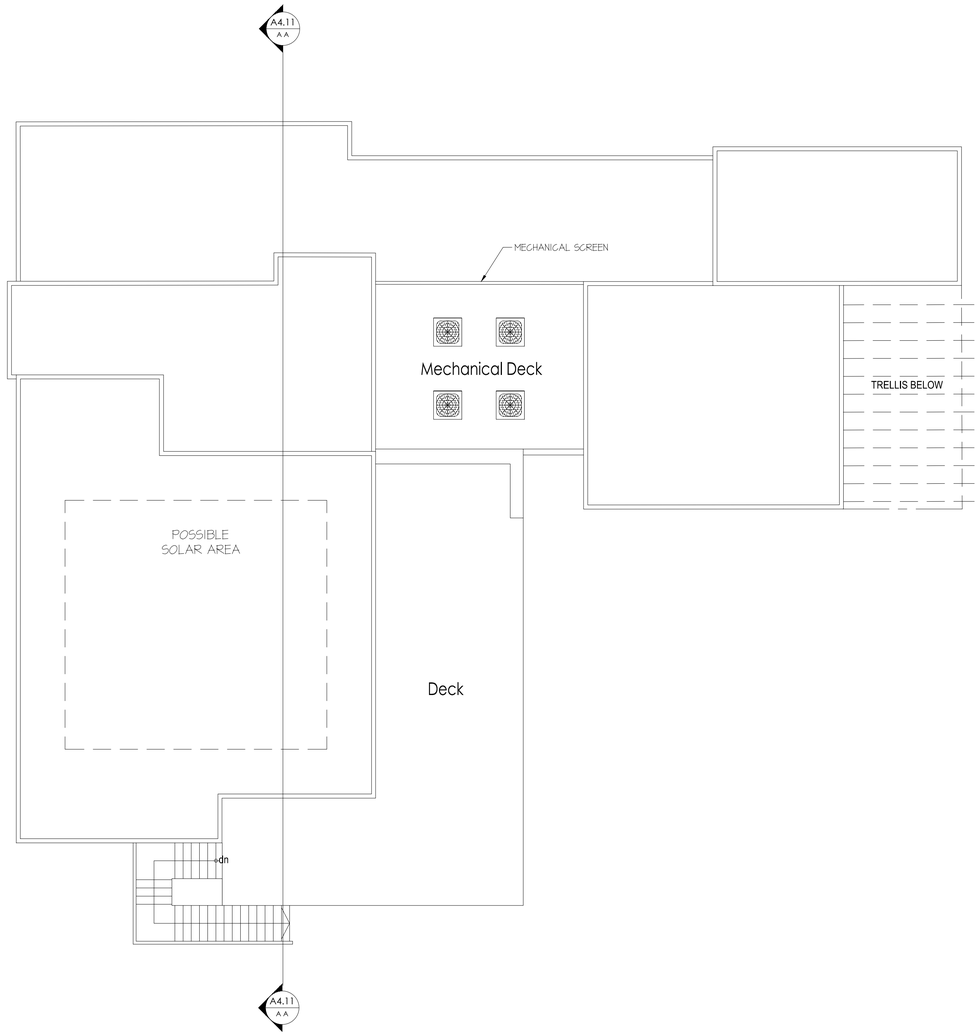
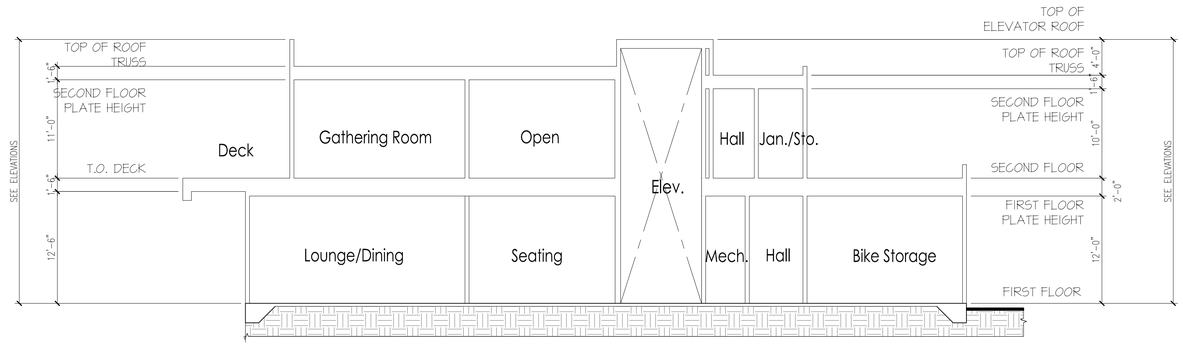


ROOF PLAN



SECTION A-A

Scale: 1/8" = 1'-0"

A1.51

APARTMENTS CLUBHOUSE - FIRST AND SECOND FLOOR PLAN

THE RESIDENCES AT CAPITAL CENTER

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FRONT ELEVATION
Scale: 3/16" = 1'-0"

LEFT ELEVATION
Scale: 3/16" = 1'-0"

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A1.52

APARTMENTS CLUBHOUSE - EXTERIOR ELEVATIONS

THE RESIDENCES AT CAPITAL CENTER

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REAR ELEVATION
Scale: 3/16" = 1'-0"

RIGHT ELEVATION
Scale: 3/16" = 1'-0"

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A1.53

APARTMENTS CLUBHOUSE - EXTERIOR ELEVATIONS

THE RESIDENCES AT CAPITAL CENTER

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VIEW FROM PARKING

VIEW AT POOL AREA

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A1.54

APARTMENTS CLUBHOUSE - VIGNETTES

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FRONT ELEVATION

LEFT ELEVATION

REAR ELEVATION

RIGHT ELEVATION

ENTRY PERSPECTIVE

REAR PERSPECTIVE

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EXTERIOR ELEVATIONS

Scale: 1/8" = 1'-0"

A2.10

TOWNHOMES - B1 3 PLEX - ELEVATIONS

THE RESIDENCES AT CAPITAL CENTER

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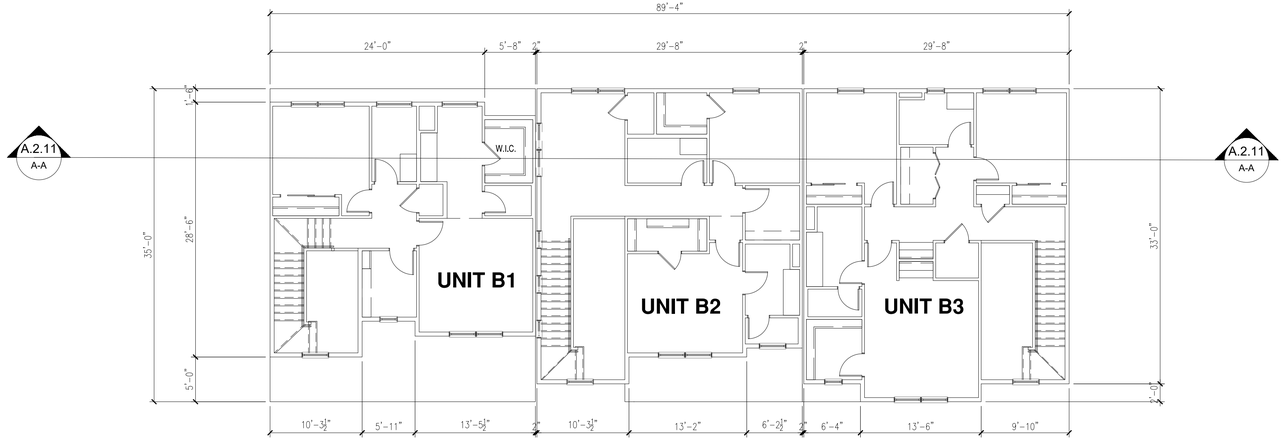
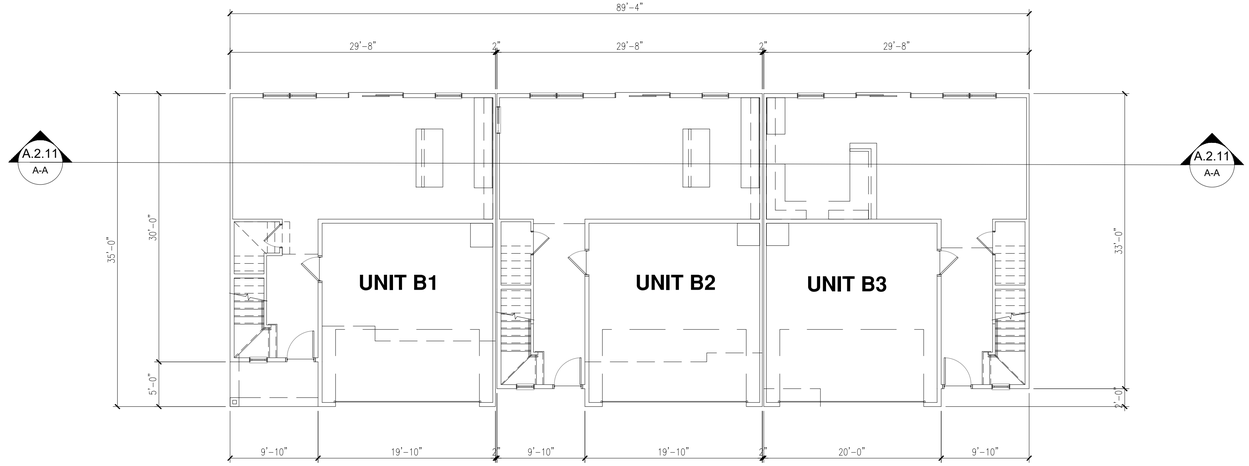


SECOND FLOOR

Scale: 1/8" = 1'-0"



FIRST FLOOR

Scale: 1/8" = 1'-0"

3-Plex

1st Floor Living	1,836 SF
2nd Floor Living	2,240 SF
Garages	1,200 SF
Net Total	5,276 SF

Unit Mix:

B1:	1 unit
B2:	1 unit
B3:	1 unit
Total:	3 units

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A2.11

TOWNHOMES - B1 3 PLEX - FLOOR PLANS

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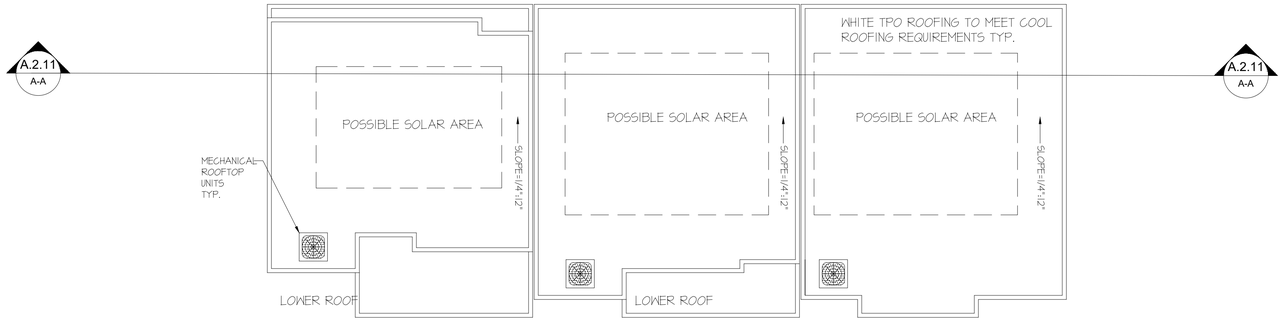
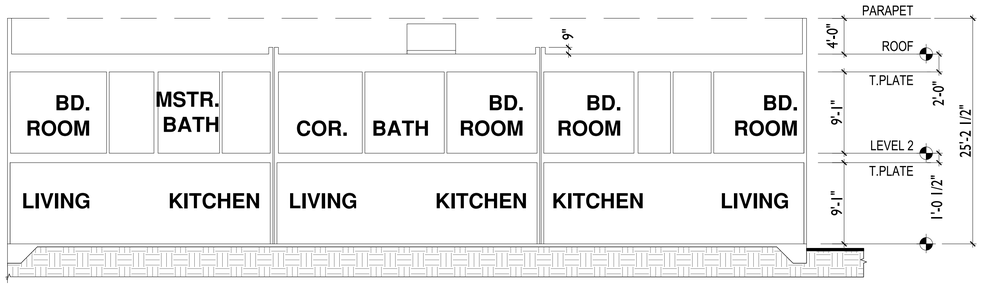


ROOF PLAN



SECTION A-A

Scale: 1/8" = 1'-0"

A2.12

TOWNHOMES - B1 3 PLEX - ROOF PLAN/SECTION

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FRONT ELEVATION

LEFT ELEVATION

REAR ELEVATION

RIGHT ELEVATION

REAR PERSPECTIVE

FRONT PERSPECTIVE

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Scale: 1/8" = 1'-0"

A2.14

TOWNHOMES - B2 5 PLEX - ELEVATIONS

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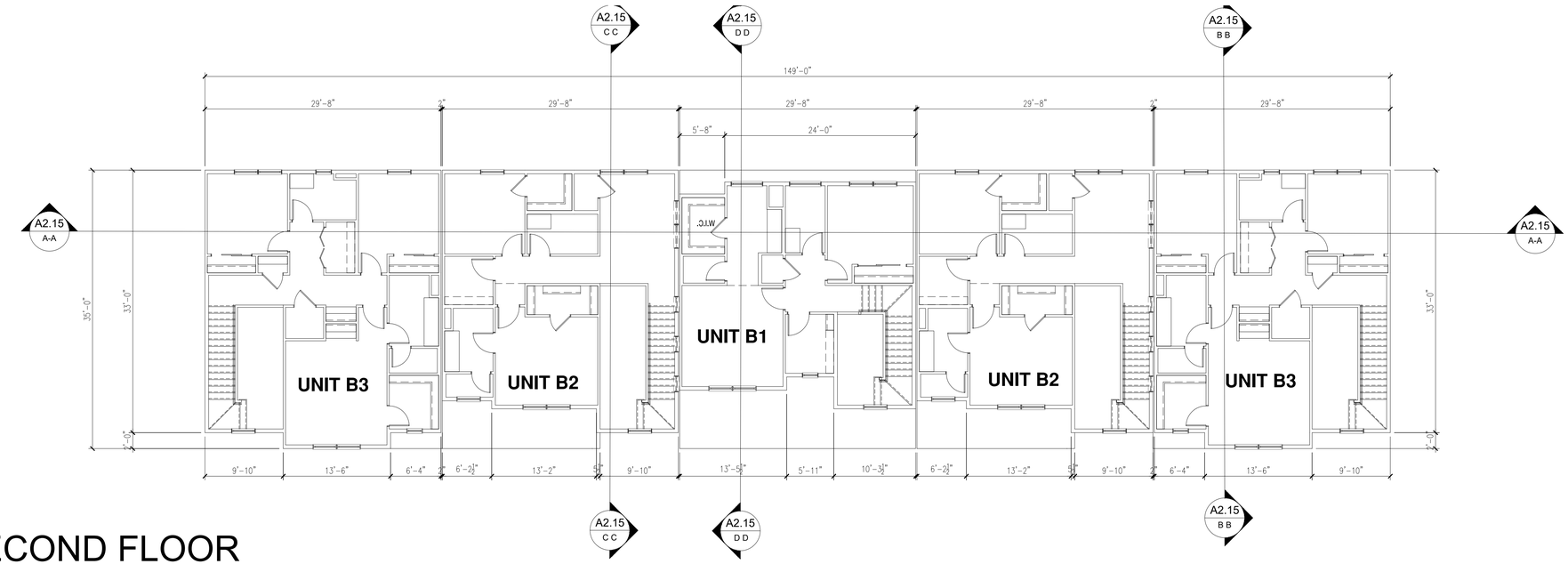
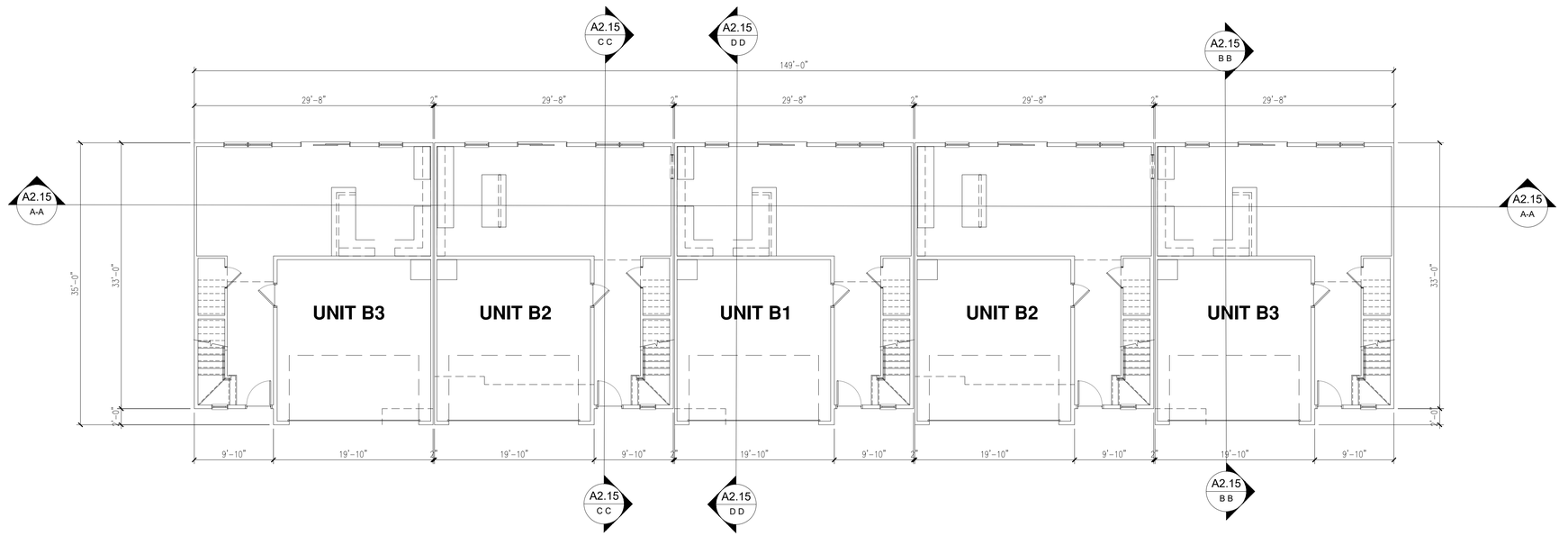


SECOND FLOOR

Scale: 1/8" = 1'-0"



FIRST FLOOR

Scale: 1/8" = 1'-0"

5-Plex

Overall Square Footage:	
1st Floor Living	3,084 SF
2nd Floor Living	3,838 SF
Garages	2,003 SF
Net Total	8,925 SF

Unit Mix:

B1:	1 units
B2:	2 units
B3:	2 units
Total:	5 units

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A2.15

TOWNHOMES - B2 5PLEX - FLOOR PLANS

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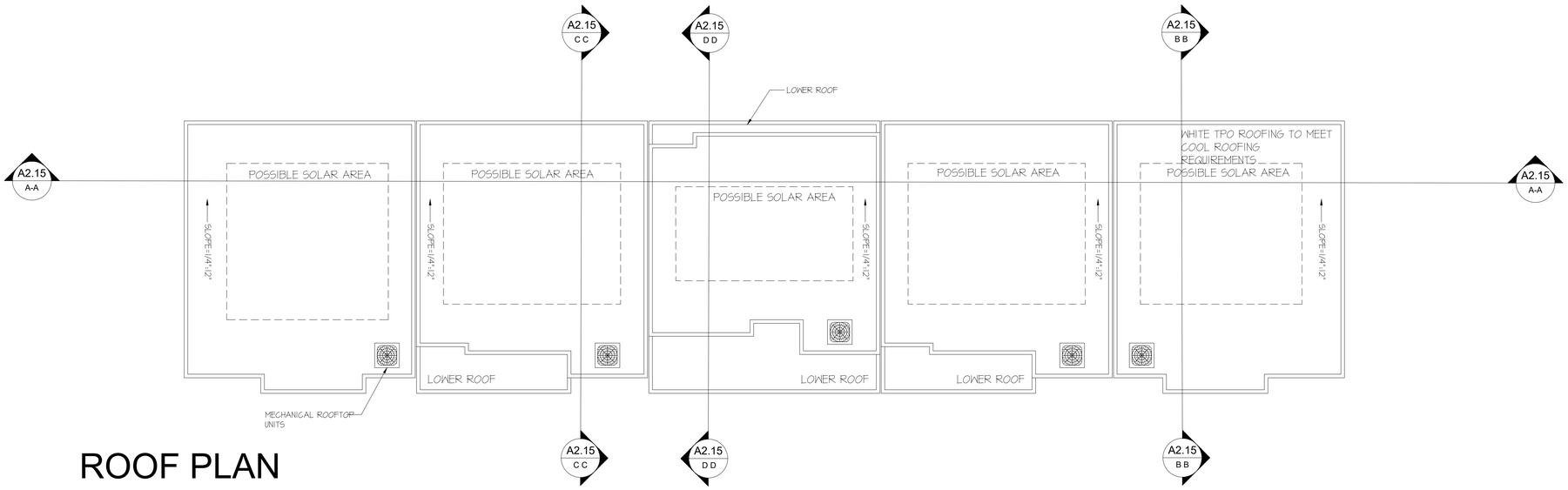
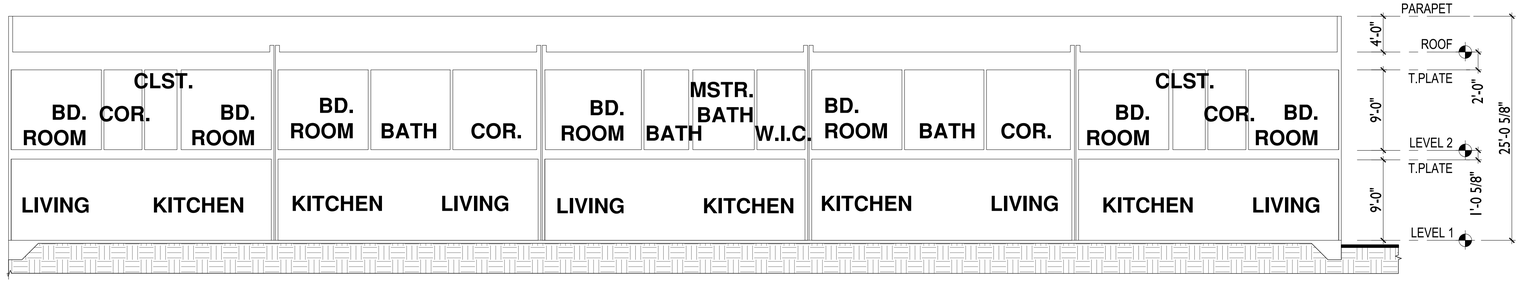
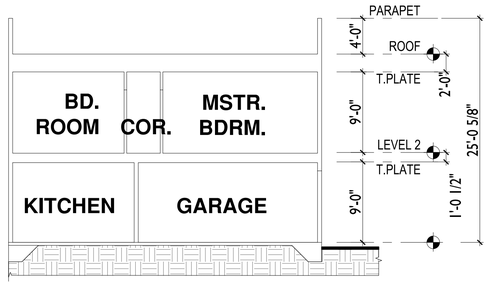


ROOF PLAN



SECTION - A A



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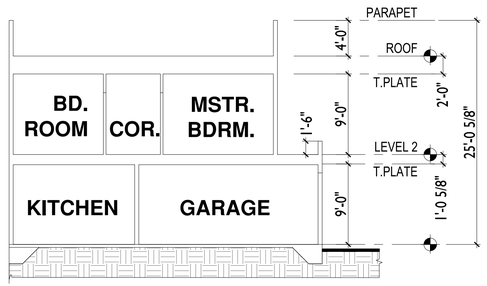

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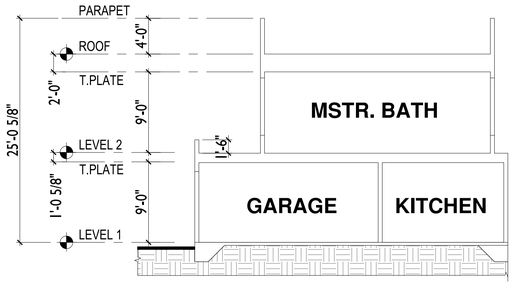

SECTION - D D

Scale: 1/8" = 1'-0"

A2.16

TOWNHOMES - B2 5 PLEX - ROOF PLANS AND SECTIONS

THE RESIDENCES AT CAPITAL CENTER

Rancho Cordova, CA

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FRONT ELEVATION

LEFT ELEVATION

REAR ELEVATION

RIGHT ELEVATION

FRONT PERSPECTIVE

REAR PERSPECTIVE

EXTERIOR ELEVATIONS

A2.18

TOWNHOMES - B3 6 PLEX - ELEVATIONS

THE RESIDENCES AT CAPITAL CENTER

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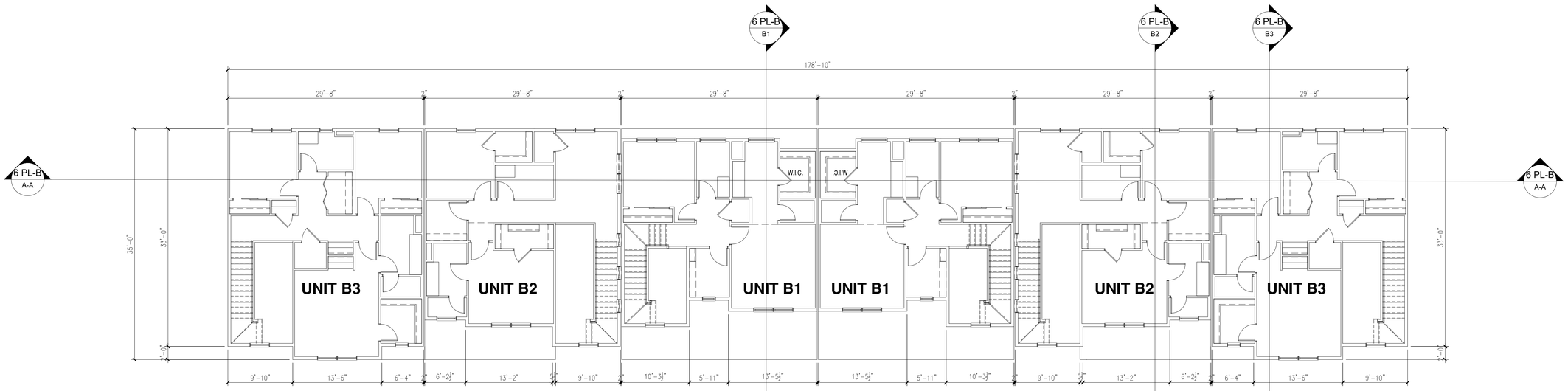
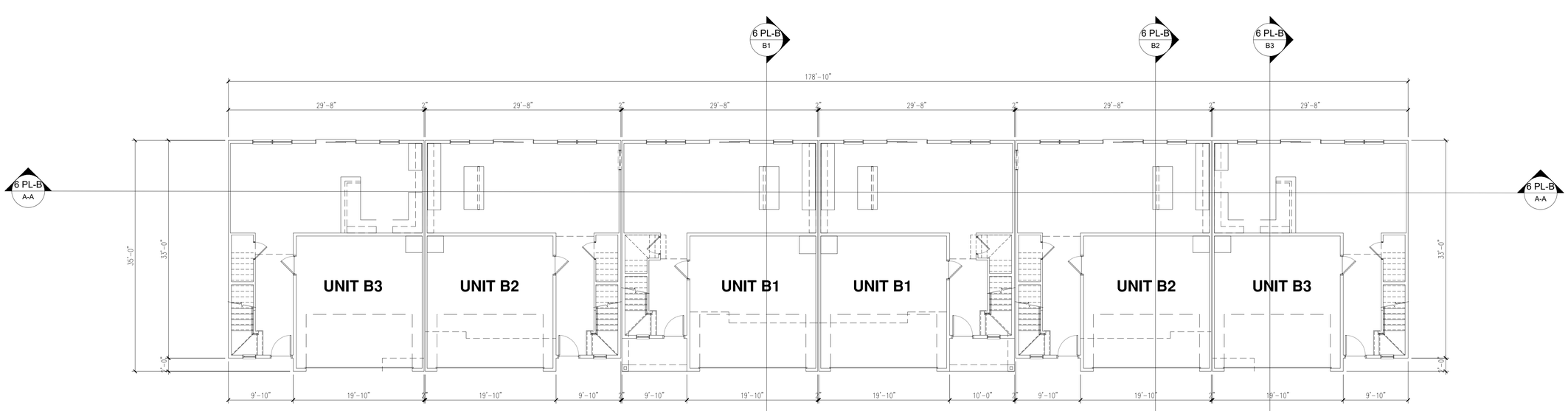


SECOND FLOOR



FIRST FLOOR

6-Plex
Overall Square Footage:

1st Floor Living	3,679 SF
2nd Floor Living	4,480 SF
Garages	2,402 SF
Net Total	10,561 SF

Unit Mix:

B1:	2 units
B2:	2 units
B3:	2 units
Total:	6 units

Scale: 1/8" = 1'-0"

A2.19

TOWNHOMES - B3 6 PLEX - FLOOR PLANS

THE RESIDENCES AT CAPITAL CENTER

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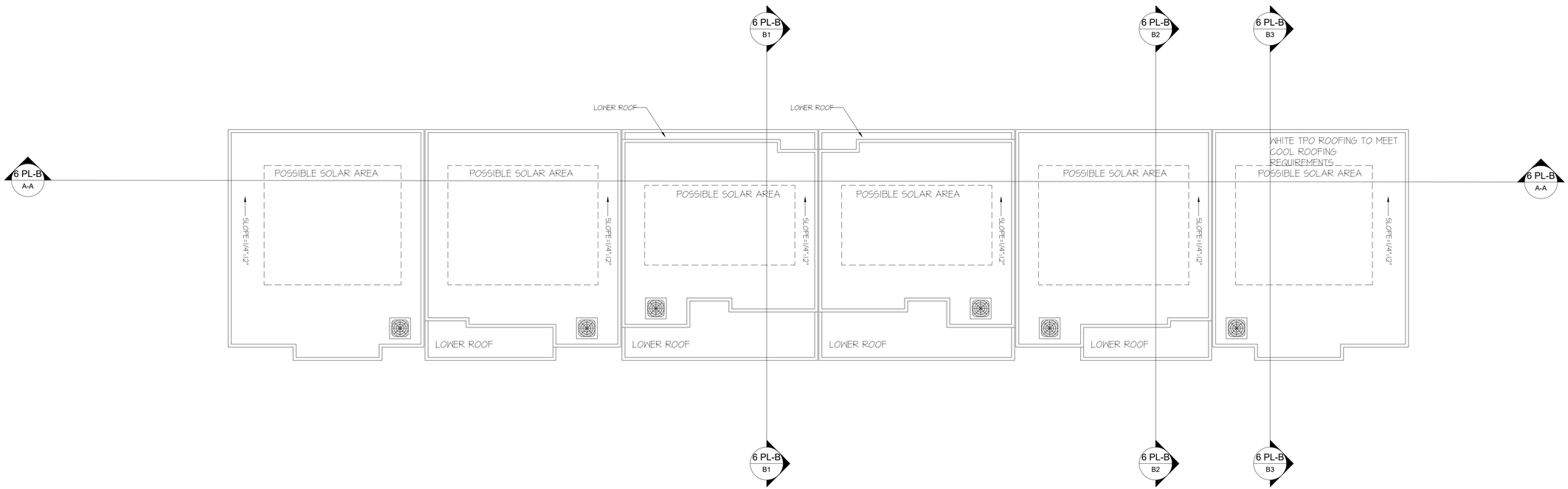

ROOF PLAN

Scale: 1/8" = 1'-0"

A2.20

TOWNHOMES - B3 - 6 PLEX - ROOF PLAN

THE RESIDENCES AT CAPITAL CENTER

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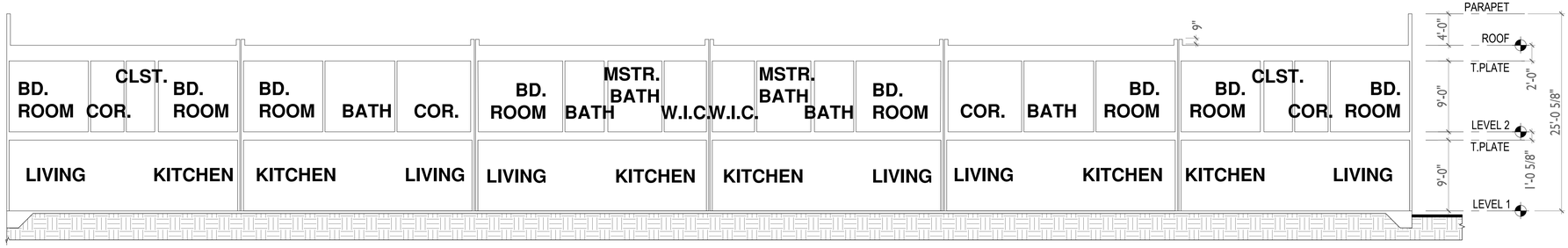
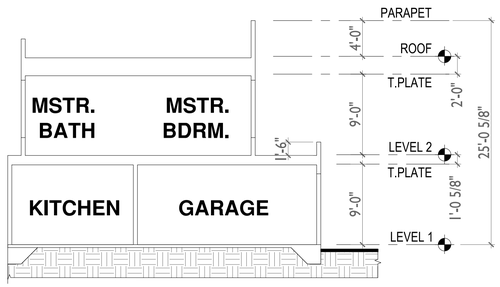


SECTION A



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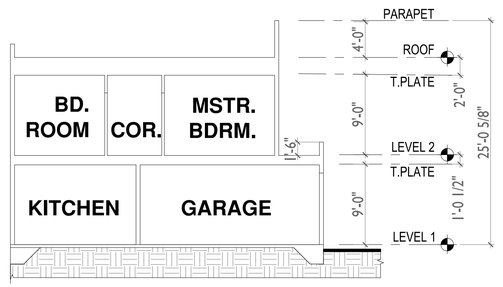

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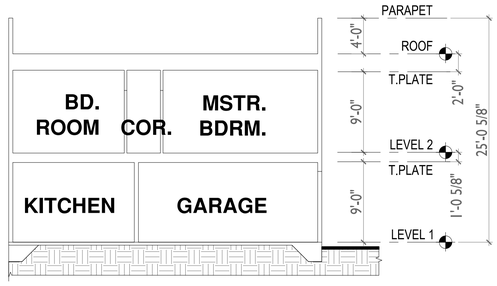

SECTION B3

Scale: 1/8" = 1'-0"

A2.21

TOWNHOMES - B3 6 PLEX- SECTIONS

THE RESIDENCES AT CAPITAL CENTER

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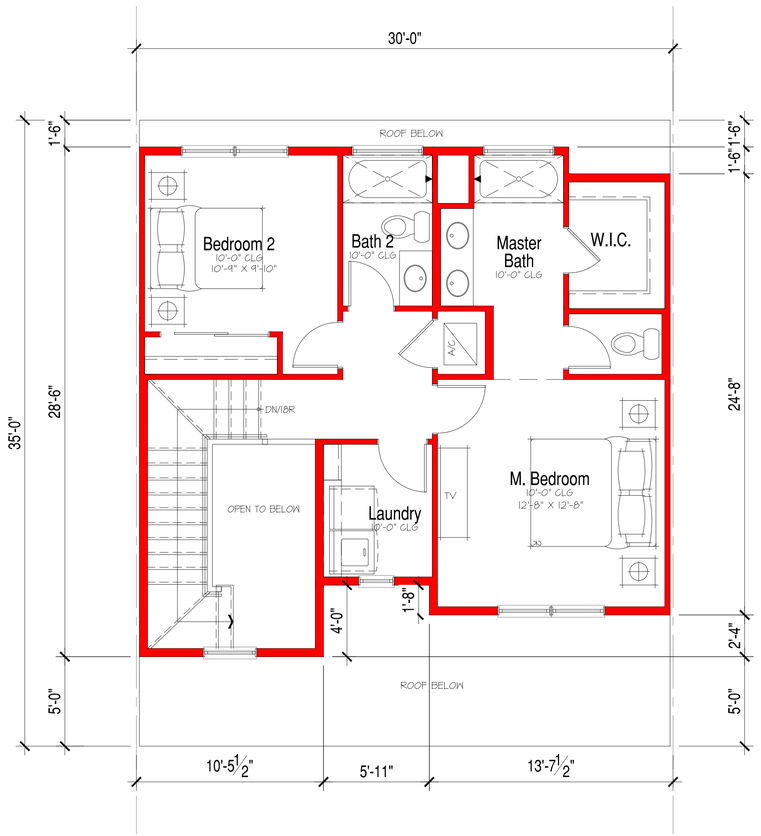
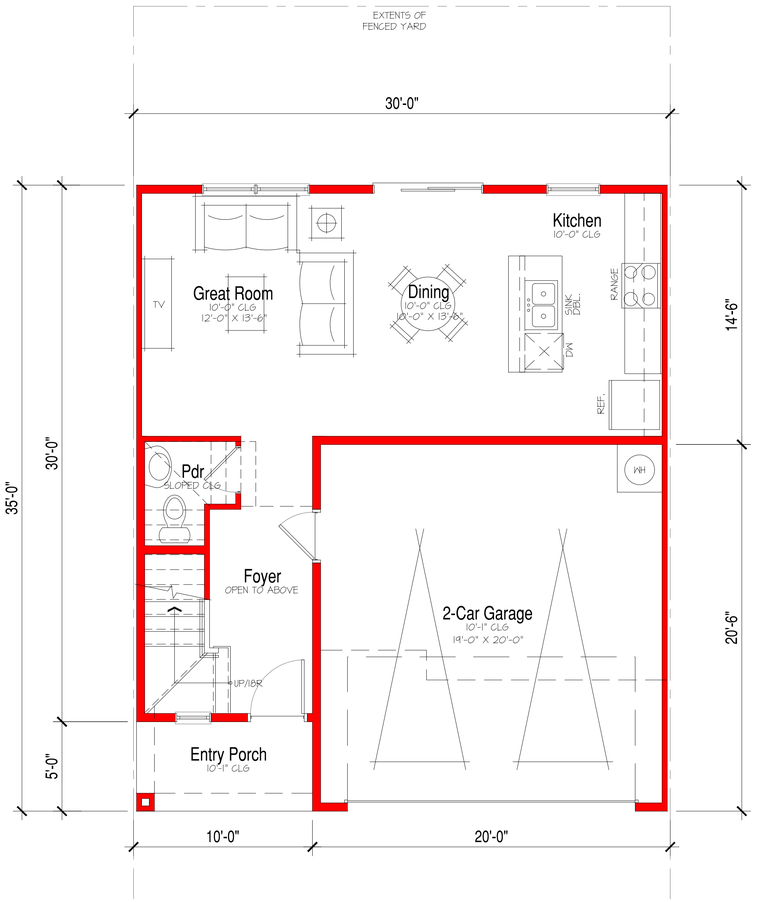


SECOND FLOOR



FIRST FLOOR

Unit - B1

First floor:	590 s.f.
Second floor:	639 s.f.
Total:	1,229 s.f.
Garage:	400 s.f.
Porch:	49 s.f.

2-STORY TOWNHOMES - B1

SCALE: 1/4" = 1'-0"

A2.22

TOWNHOMES - ENLARGED UNIT PLANS

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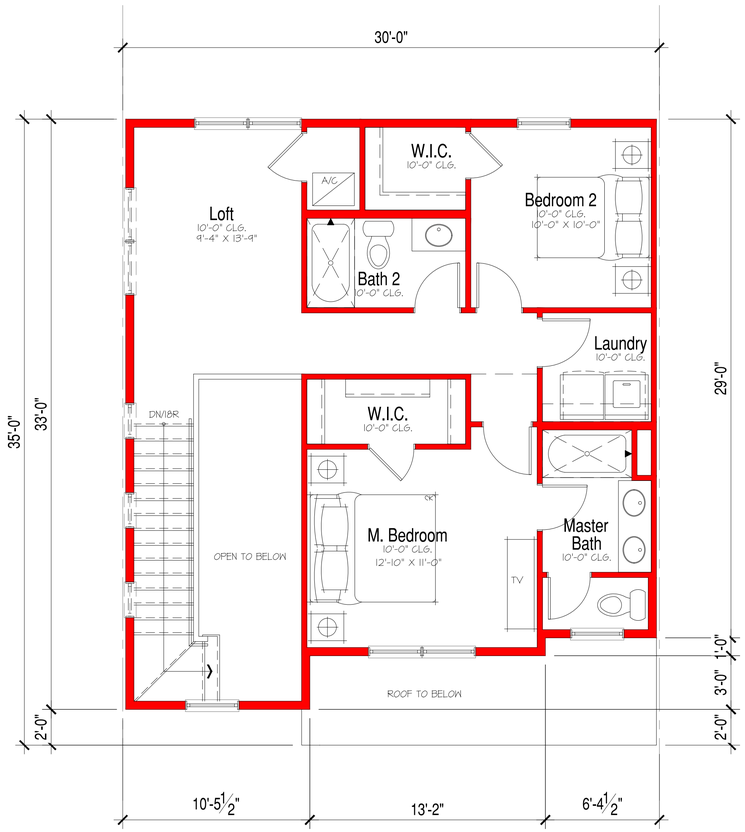
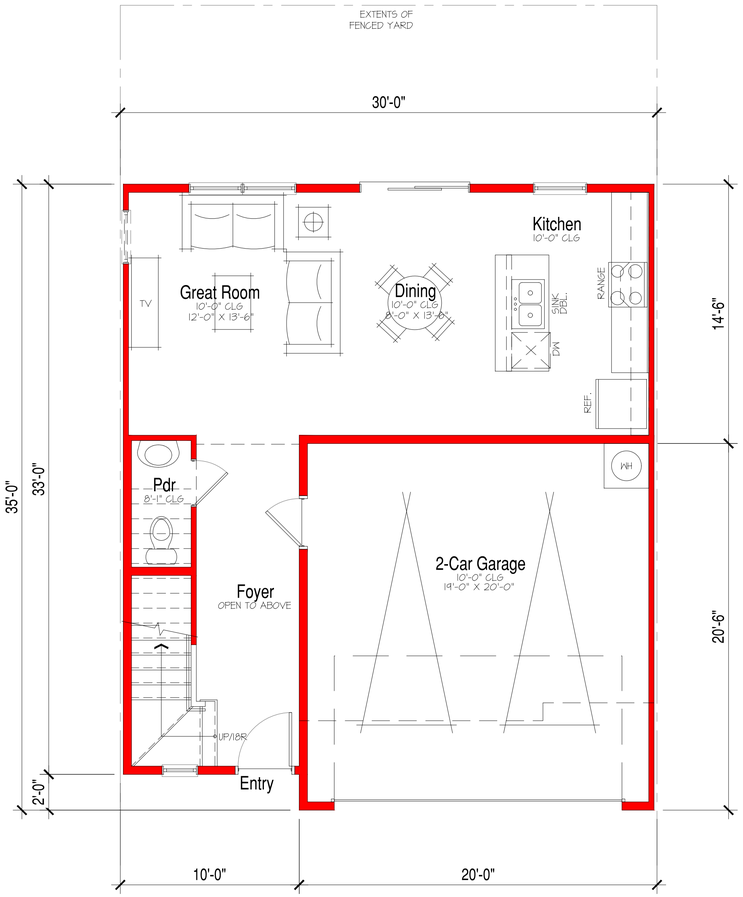


SECOND FLOOR



FIRST FLOOR

Unit - B2

First floor:	621 s.f.
Second floor:	742 s.f.
Total:	1,363 s.f.
Garage:	398 s.f.

2-STORY TOWNHOMES - B2

SCALE: 1/4" = 1'-0"

A2.23

TOWNHOMES - ENLARGED UNIT PLANS

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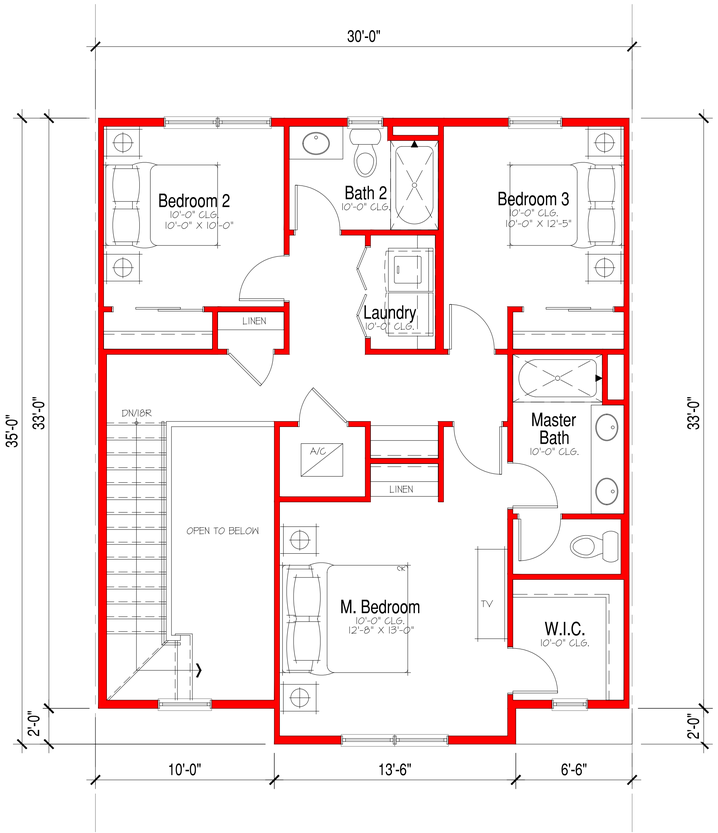

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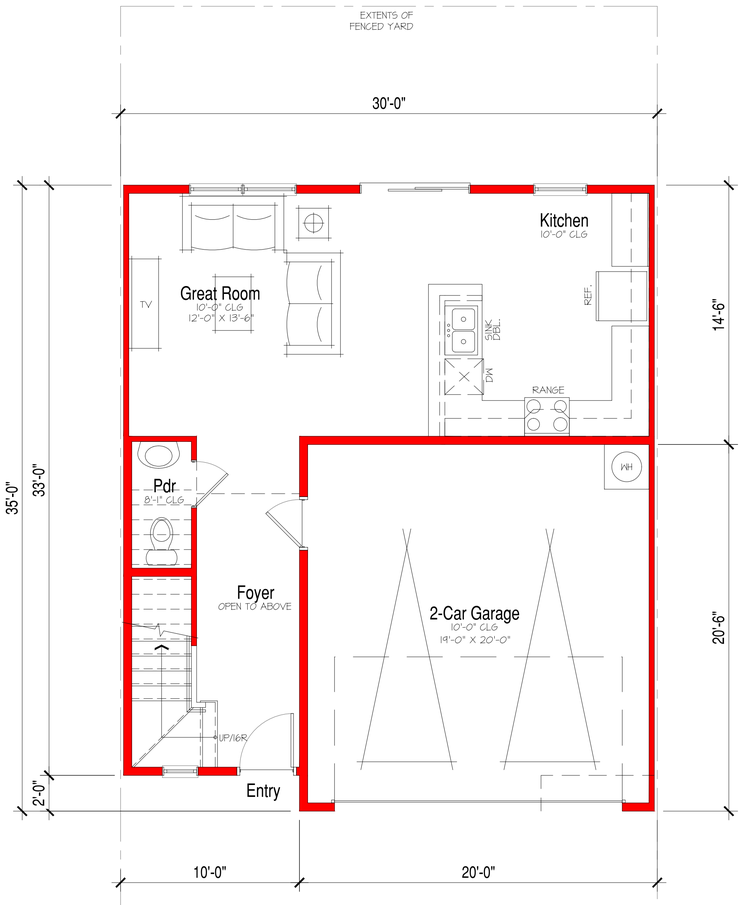

FIRST FLOOR

Unit - B3

First floor:	621 s.f.
Second floor:	850 s.f.
Total:	1,471 s.f.
Garage:	398 s.f.

2-STORY TOWNHOMES - B3

SCALE: 1/4" = 1'-0"

A2.24

TOWNHOMES - ENLARGED UNIT PLANS

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FRONT ELEVATION

REAR ELEVATION

RIGHT/LEFT ELEVATION

EXTERIOR ELEVATIONS

Scale: 3/16" = 1'-0"

A3.10

TOWNHOMES - C1 3PLEX - ELEVATIONS

THE RESIDENCES AT CAPITAL CENTER

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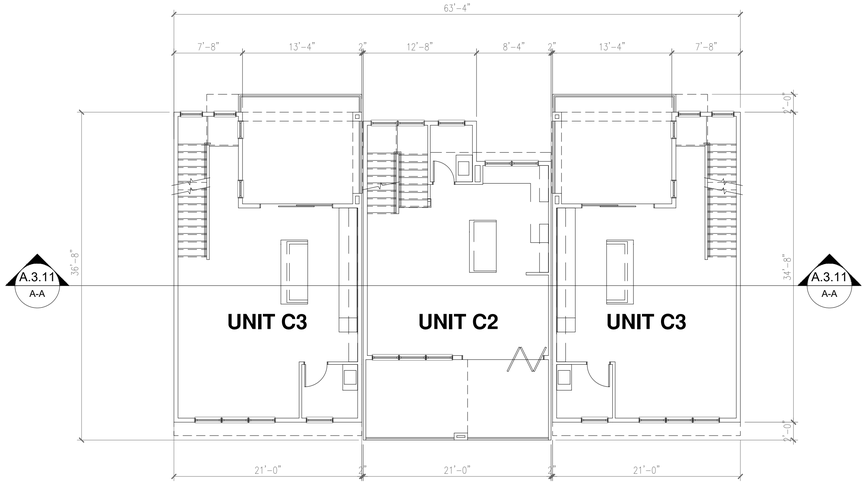

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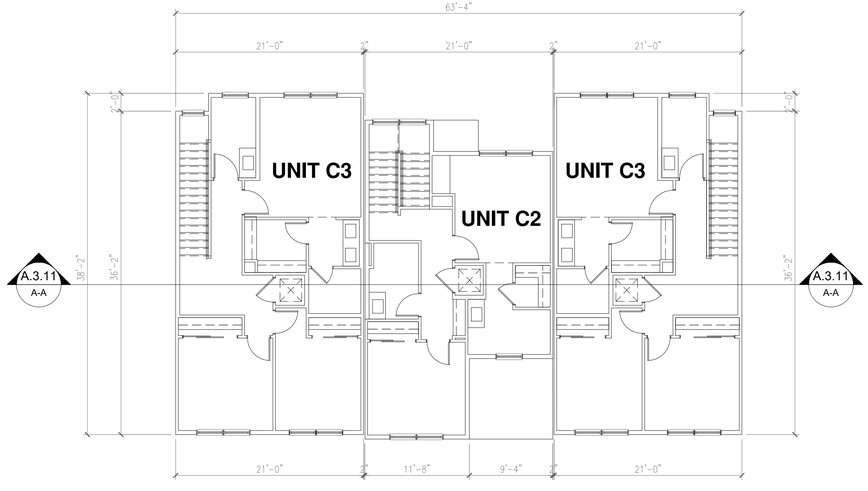
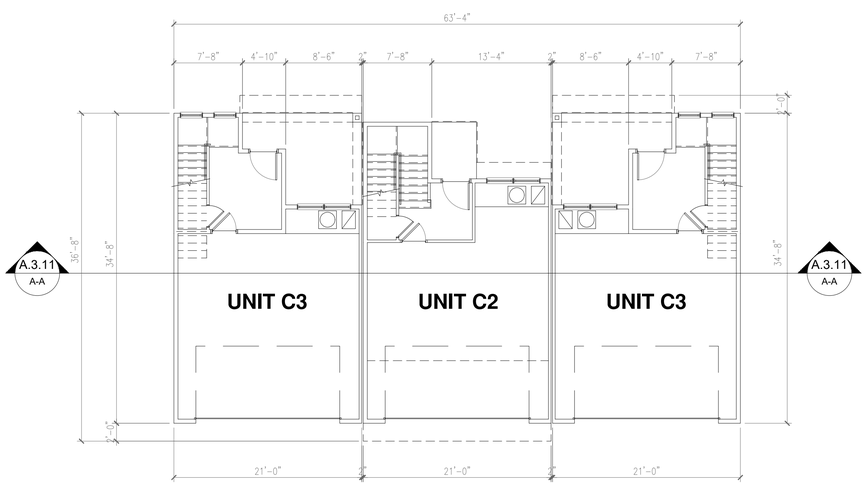


THIRD FLOOR



FIRST FLOOR

3-PLEX

1st Floor Living	427 SF
2nd Floor Living	1,646 SF
3rd Floor Living	1,831 SF
Garages	1,451 SF
Net Total	5,355 SF
Decks	544 SF
Porches	171 SF
Gross Total	6,070 SF
	* 1
	6,070 SF

UNIT MIX:

C2:	1 unit
C3:	2 units
Total:	3 units

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Scale: 1/8" = 1'-0"

A3.11

TOWNHOMES - C1 3 PLEX - FLOOR PLANS

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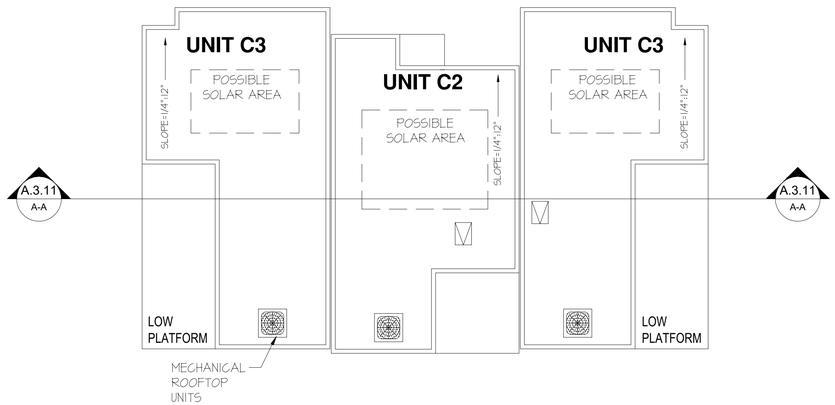
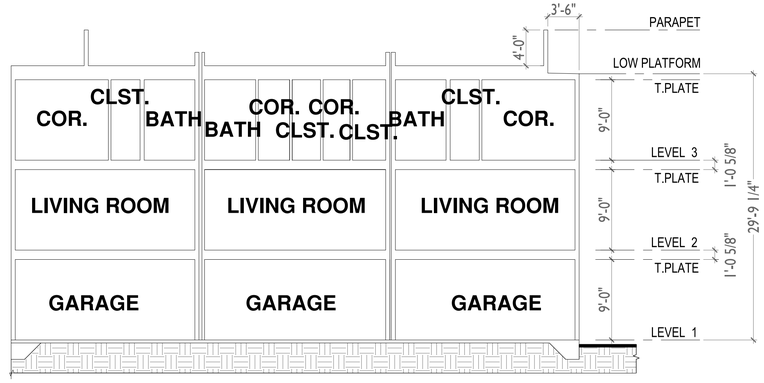


ROOF PLAN
Scale: 1/8" = 1'-0"



SECTION
Scale: 1/8" = 1'-0"

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A3.12

TOWNHOMES - C1 3 PLEX - ROOF PLAN/SECTION

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FRONT ELEVATION

FRONT PERSPECTIVE

REAR ELEVATION

RIGHT/LEFT ELEVATION

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Scale: 3/16" = 1'-0"

A3.13

TOWNHOMES - C2 4 PLEX - ELEVATIONS

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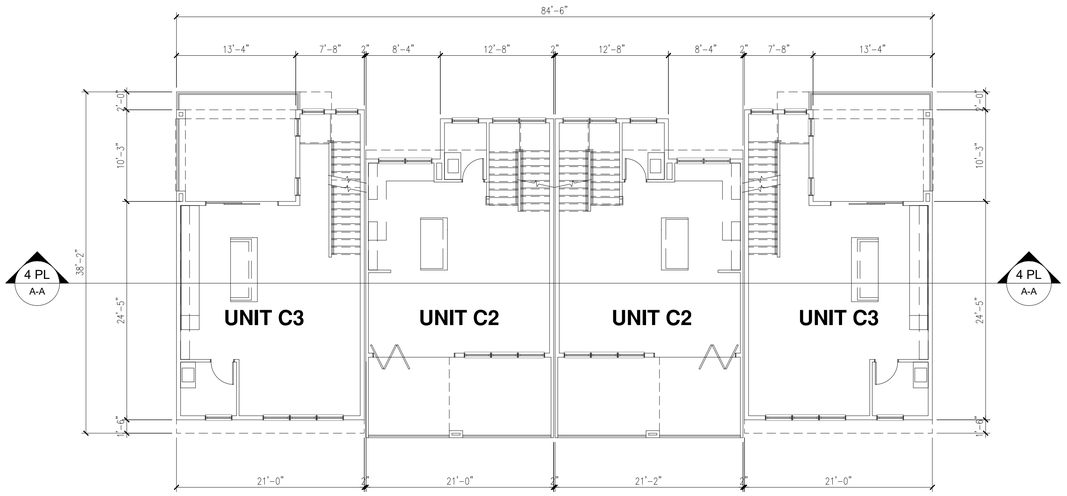
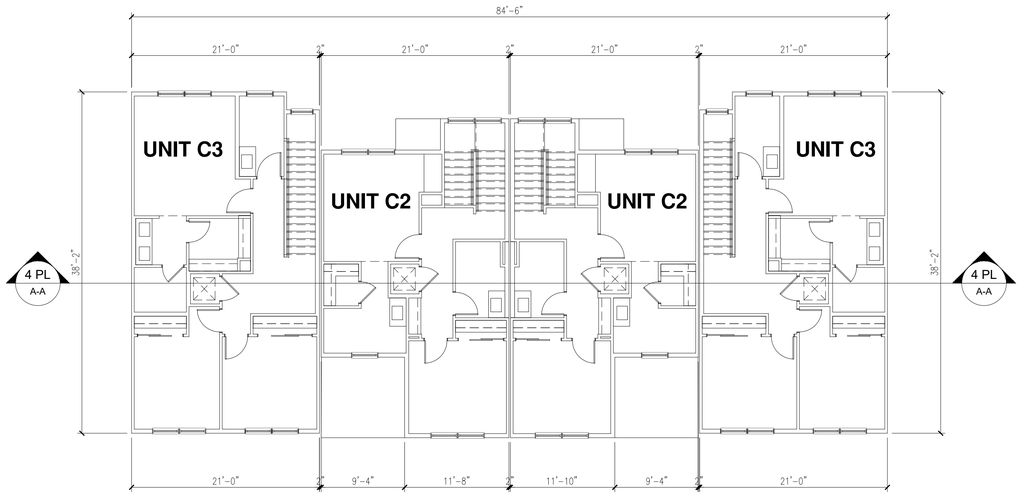
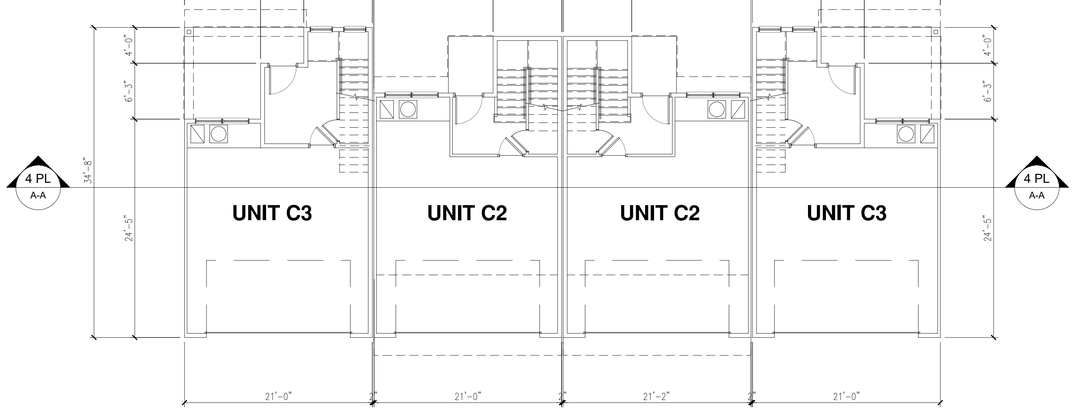


SECOND FLOOR
Scale: 1/8" = 1'-0"



THIRD FLOOR
Scale: 1/8" = 1'-0"



FIRST FLOOR
Scale: 1/8" = 1'-0"

4-Plex

1st Floor Living	578 SF
2nd Floor Living	2,241 SF
3rd Floor Living	2,569 SF
Garages	1,927 SF
Net Total	7,315 SF
Decks	709 SF
Porches	278 SF
Gross Total	8,302 SF

Unit Mix:
C2: 2 units
C3: 2 units
Total: 4 units

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A3.14

TOWNHOMES - C2 4PLEX - FLOOR PLANS

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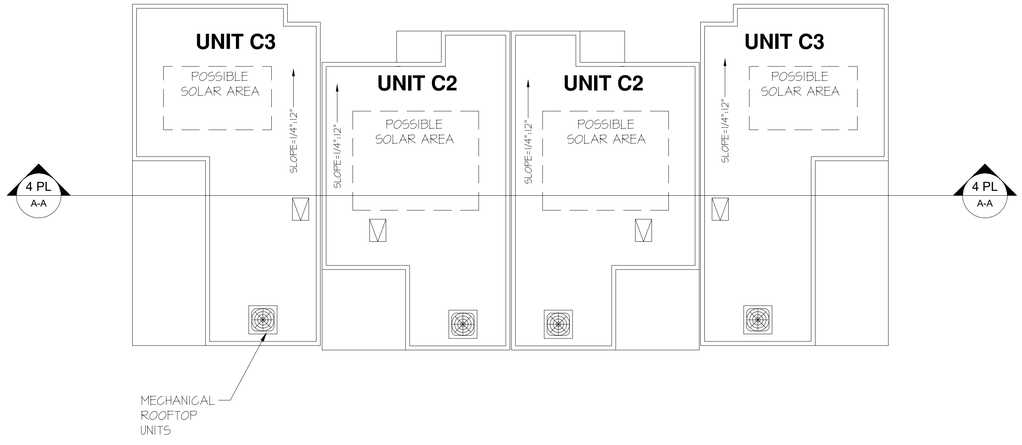
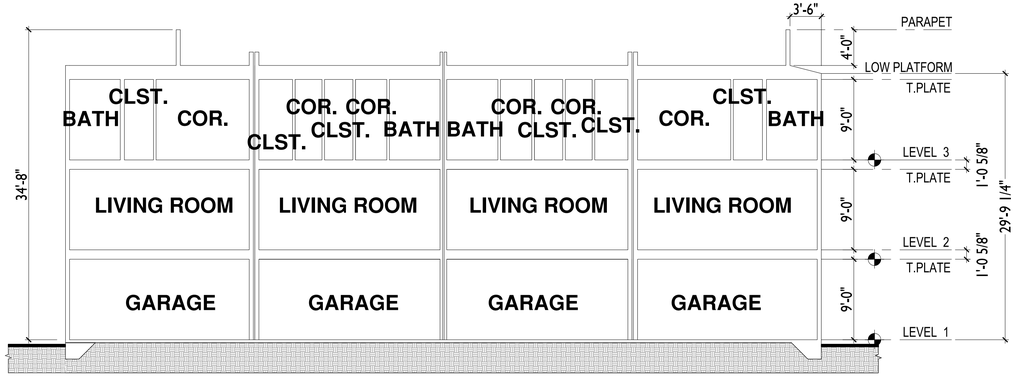


ROOF PLAN

Scale: 1/8" = 1'-0"



SECTION

Scale: 1/8" = 1'-0"

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A3.14

TOWNHOMES - C2 4 PLEX - ROOF PLAN/SECTION

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FRONT ELEVATION

ENTRY PERSPECTIVE

REAR ELEVATION

RIGHT/LEFT ELEVATION

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EXTERIOR ELEVATIONS

Scale: 3/16" = 1'-0"

A3.16

TOWNHOMES - C3 5PLEX - ELEVATIONS

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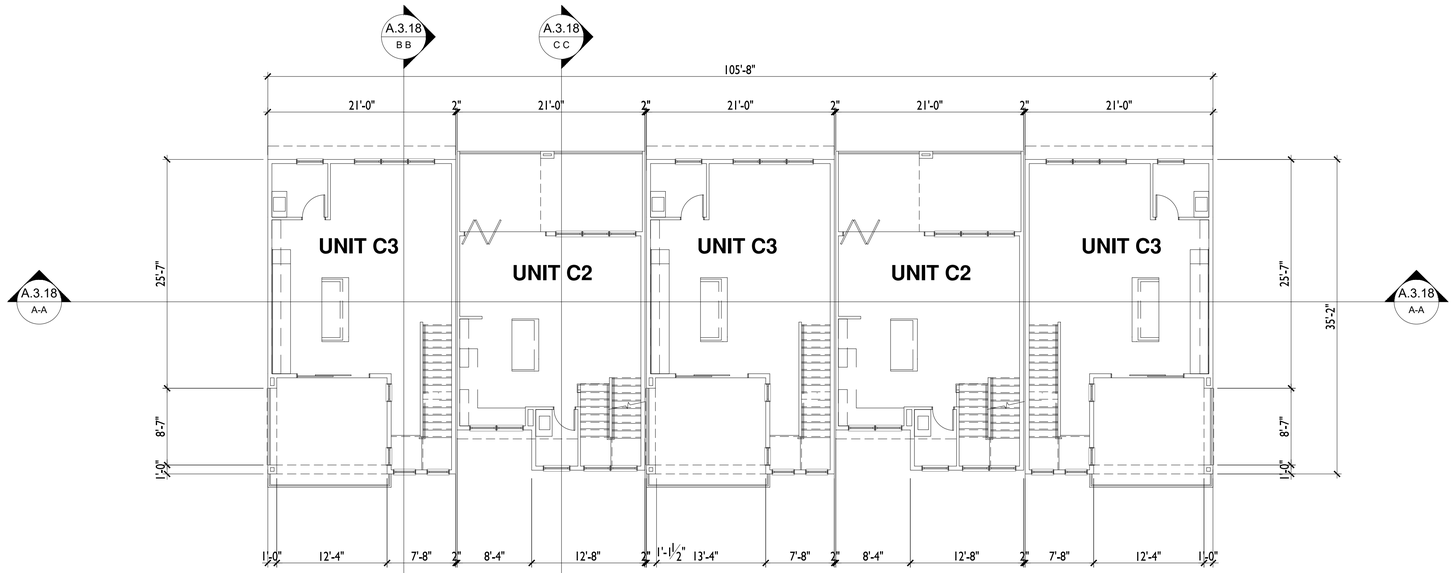
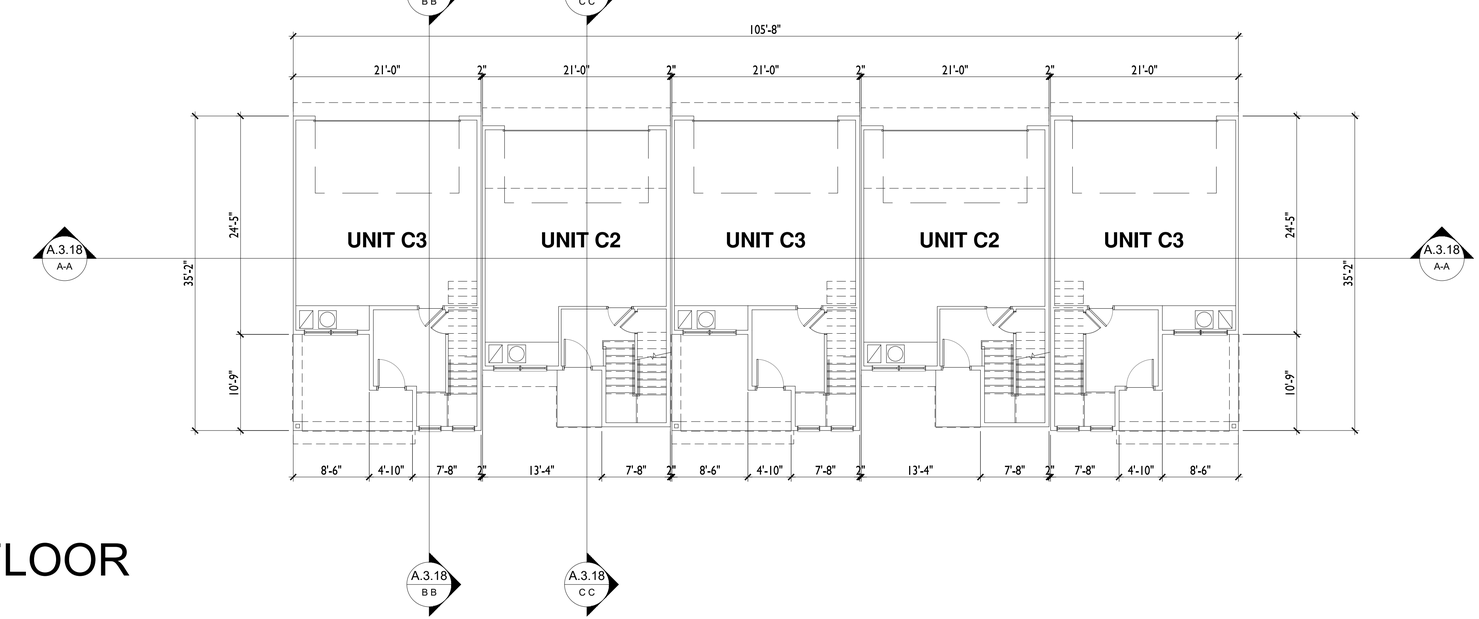


SECOND FLOOR



FIRST FLOOR

5-Plex

1st Floor Living	727 SF
2nd Floor Living	2,837 SF
3rd Floor Living	3,306 SF
Garages	2,406 SF
Net Total	9,276 SF
Decks	873 SF
Porches	385 SF
Gross Total	10,534 SF *

2 = 21,068 SF

Unit Mix:

C2:	2 units
C3:	3 units
Total:	5 units

SCALE: 1/8" = 1'-0"

A3.17

TOWNHOMES - C3 5 PLEX - FLOOR PLANS (1st & 2nd)

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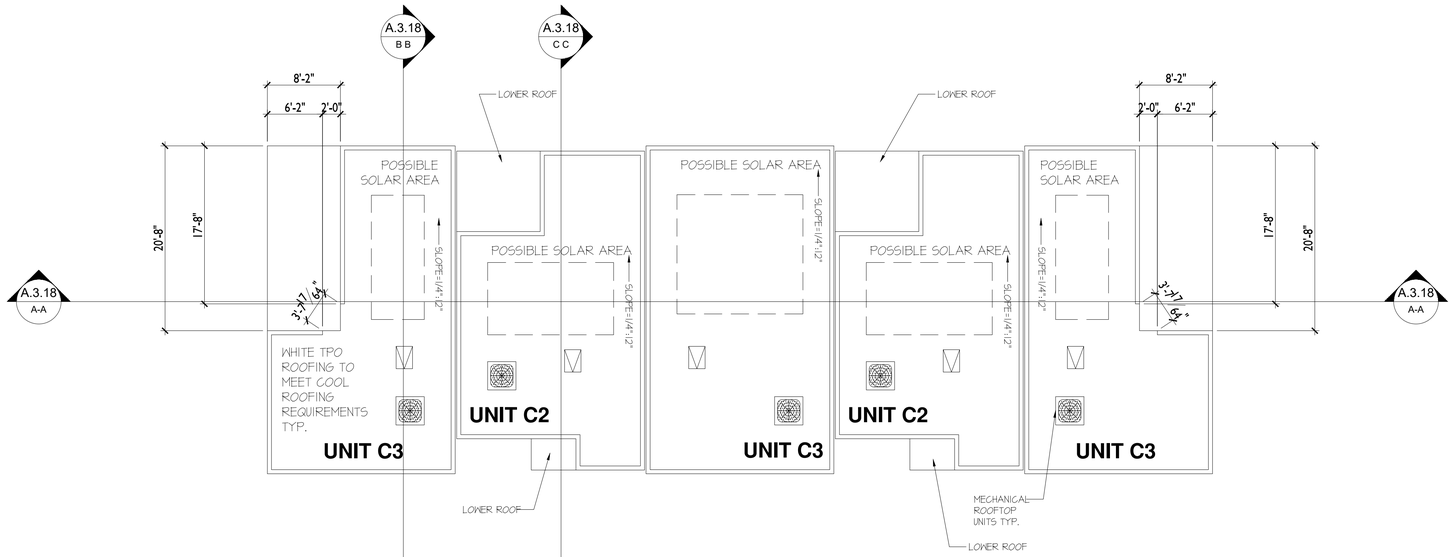
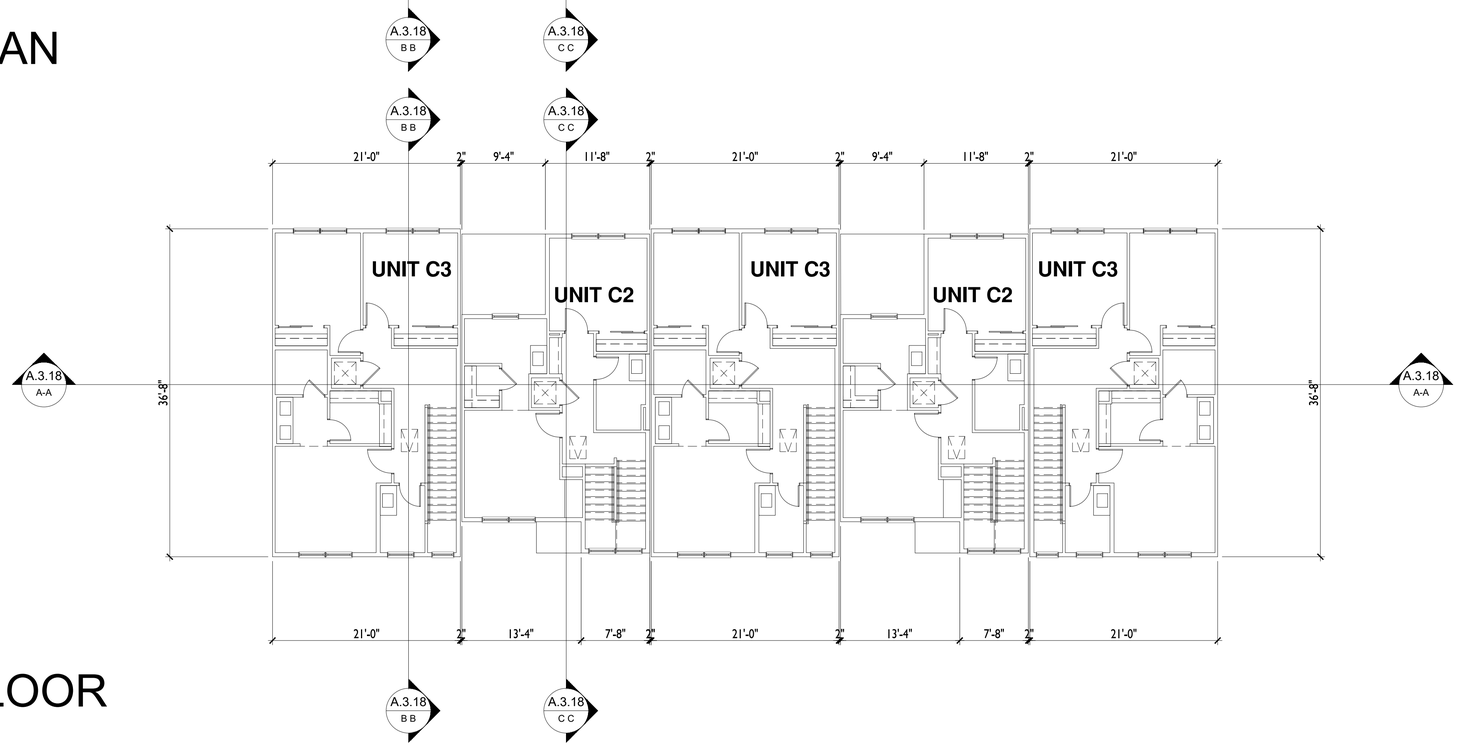


ROOF PLAN



THIRD FLOOR

FLOOR PLANS

SCALE: 1/8" = 1'-0"

A3.18

TOWNHOMES - C3 5 PLEX - FLOOR PLANS (3rd & Roof)

THE RESIDENCES AT CAPITAL CENTER

Rancho Cordova, CA

GRUPE

COLE PARTNERS DEVELOPMENT COMPANY
REAL ESTATE: INVESTMENT, DEVELOPMENT & MANAGEMENT

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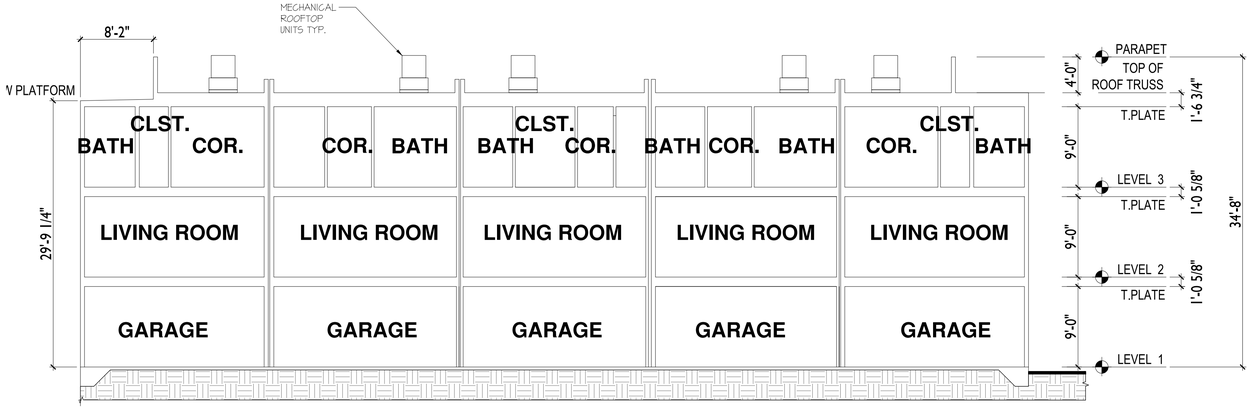

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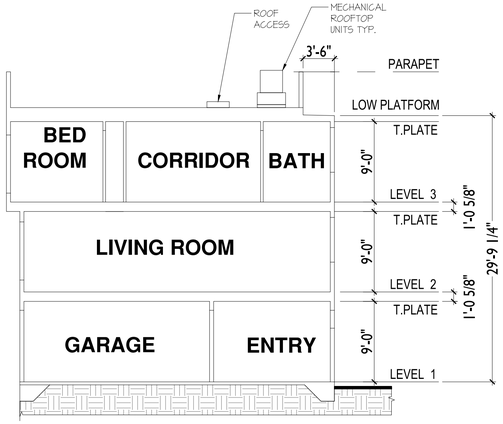

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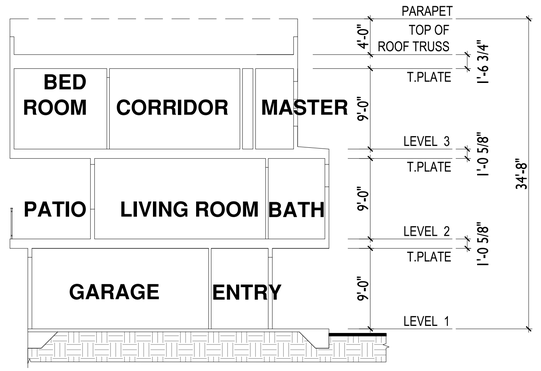

SECTION - C C

GRUPE

COLE PARTNERS DEVELOPMENT COMPANY
REAL ESTATE INVESTMENT, DEVELOPMENT & MANAGEMENT

SCALE: 1/8" = 1'-0"

A3.19

TOWNHOMES - C3 5 PLEX - SECTIONS

THE RESIDENCES AT CAPITAL CENTER

Rancho Cordova, CA

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FRONT ELEVATION

RIGHT/LEFT ELEVATION

FRONT PERSPECTIVE

Scale: 3/16" = 1'-0"

A3.20

TOWNHOMES - C4 6 PLEX - ELEVATIONS

THE RESIDENCES AT CAPITAL CENTER

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REAR ELEVATION

REAR PERSPECTIVE

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Scale: 3/16" = 1'-0"

A3.21

TOWNHOMES - C4 6 PLEX - ELEVATIONS

THE RESIDENCES AT CAPITAL CENTER

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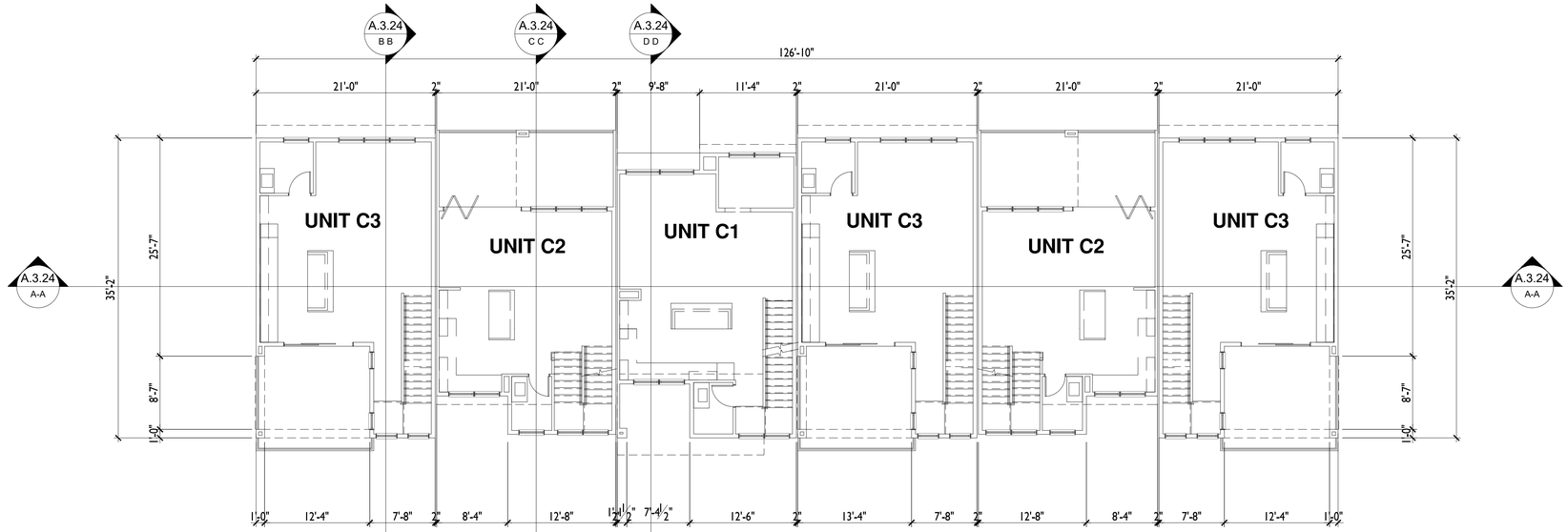
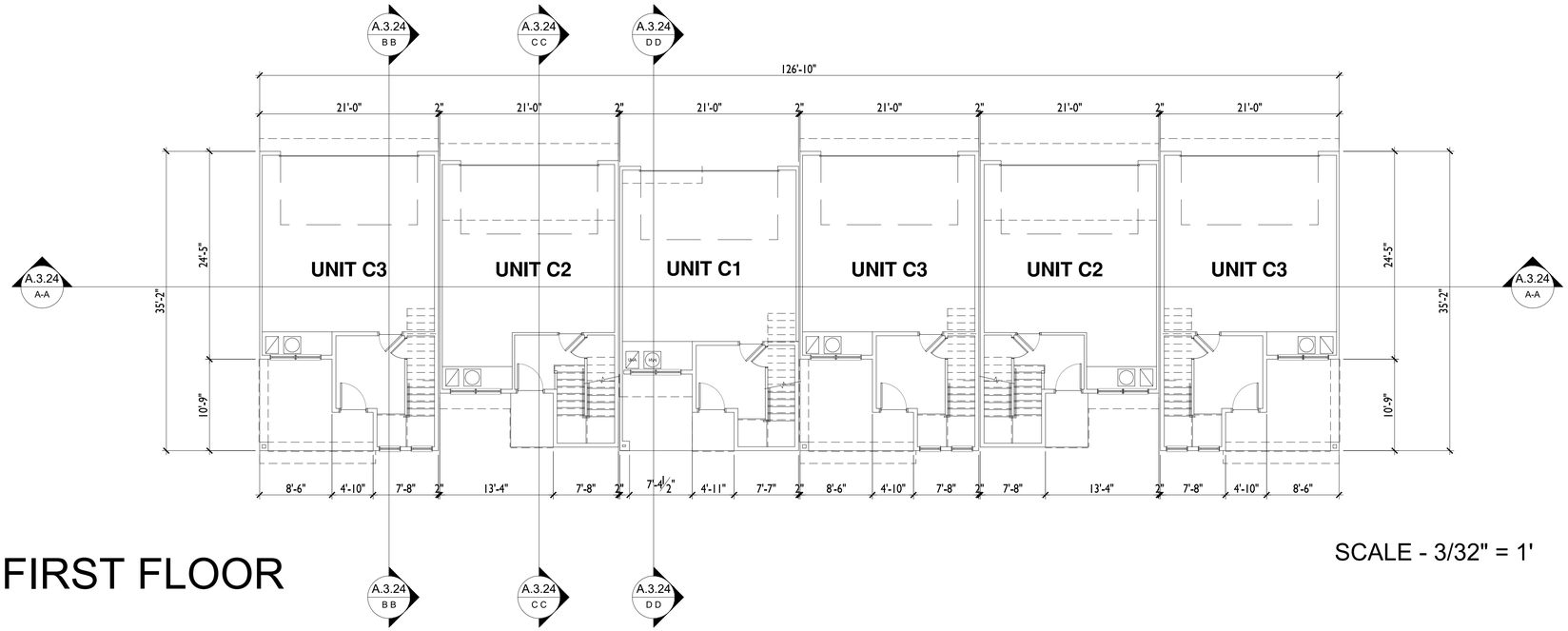


SECOND FLOOR



FIRST FLOOR

SCALE - 3/32" = 1'

6-Plex:

1st Floor Living	865 SF
2nd Floor Living	3,467 SF
3rd Floor Living	3,814 SF
Garages	2,872 SF
Net Total	11,018 SF
Decks	1,041 SF
Porches	486 SF
Gross Total	12,545 SF *

7 = 87,815 SF

Unit Mix:

C1:	1 units
C2:	2 units
C3:	3 units
Total:	6 units

GRUPE

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REAL ESTATE INVESTMENT, DEVELOPMENT & MANAGEMENT

A3.22

TOWNHOMES - C4 6 PLEX - FLOOR PLANS

THE RESIDENCES AT CAPITAL CENTER

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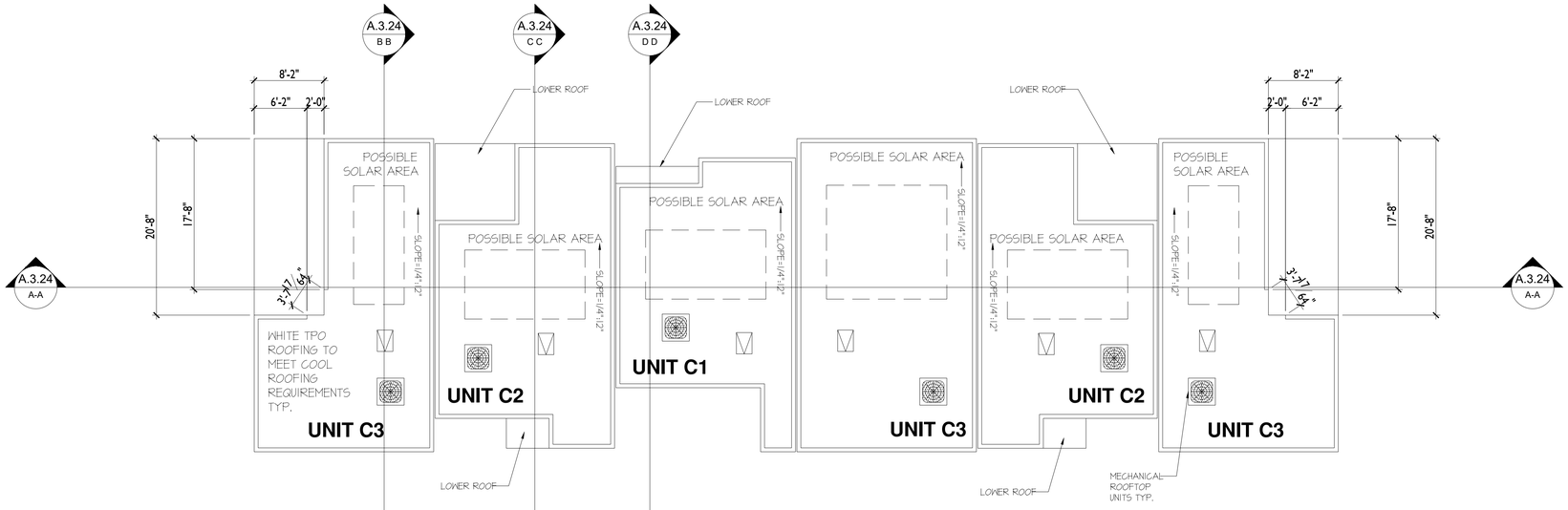
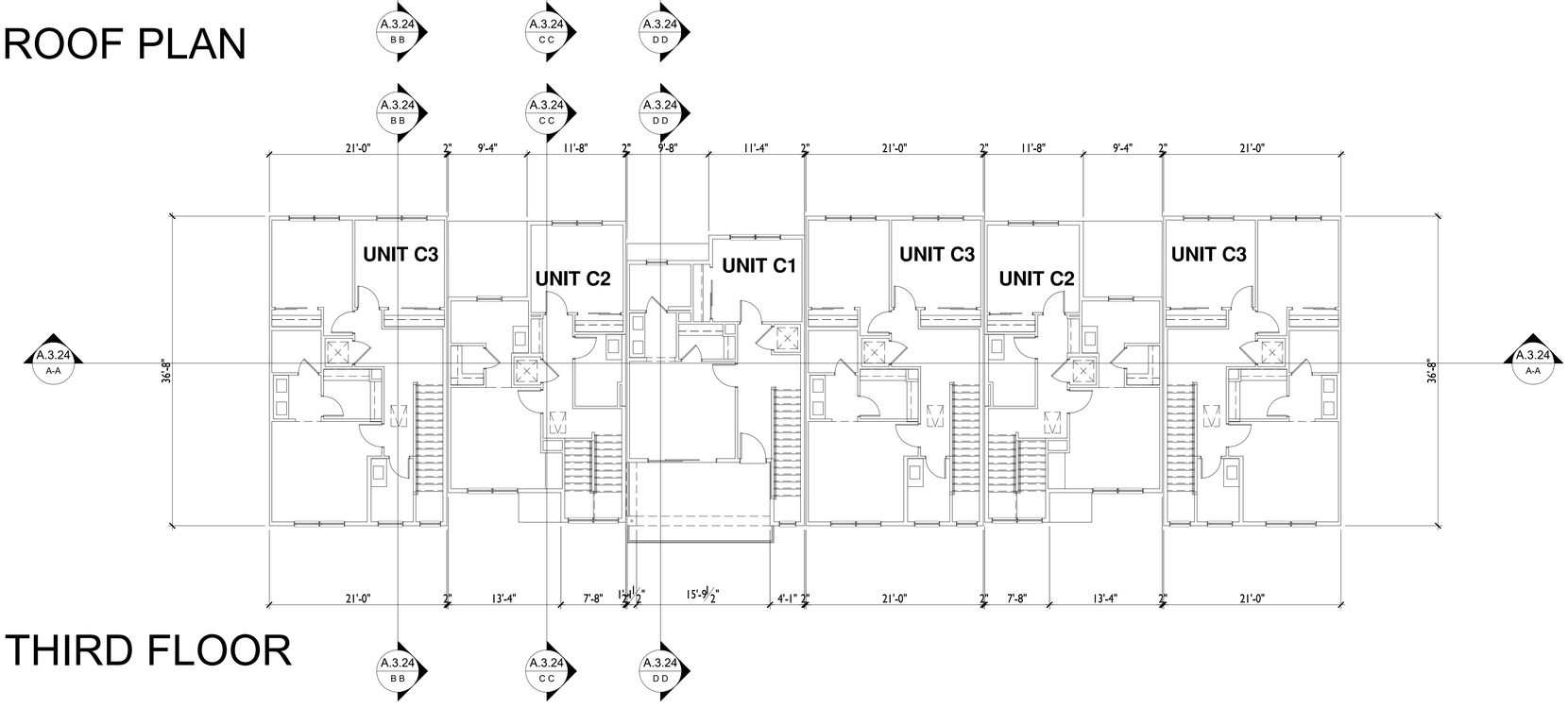


ROOF PLAN



THIRD FLOOR

SCALE: 1/8" = 1'-0"

A3.23

TOWNHOMES - C4 6 PLEX - FLOOR AND ROOF PLAN

THE RESIDENCES AT CAPITAL CENTER

Rancho Cordova, CA

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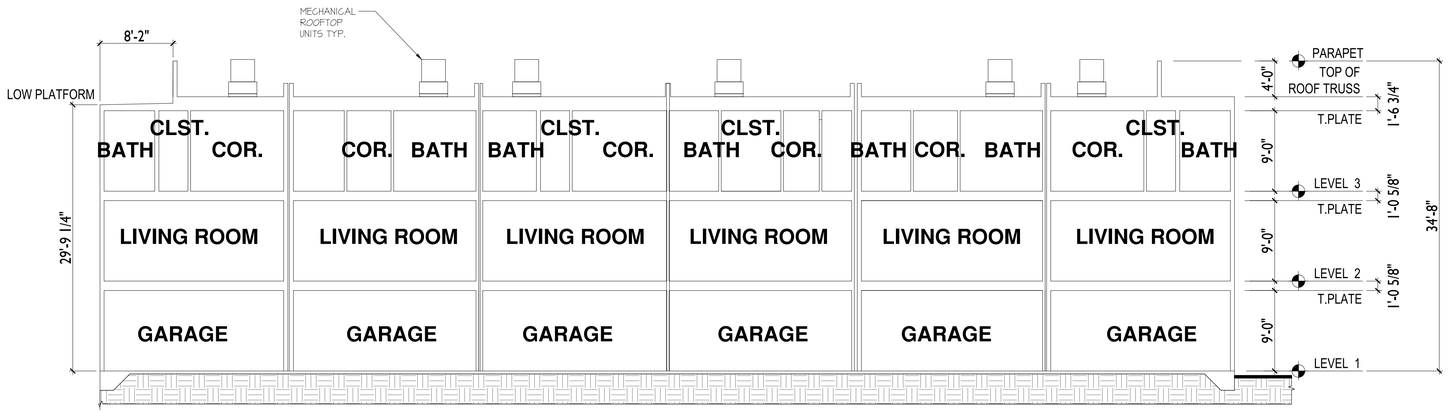

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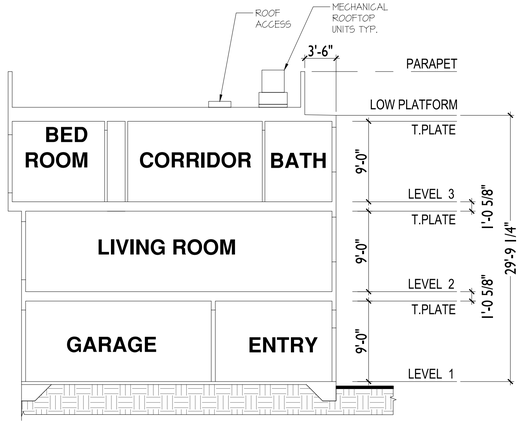

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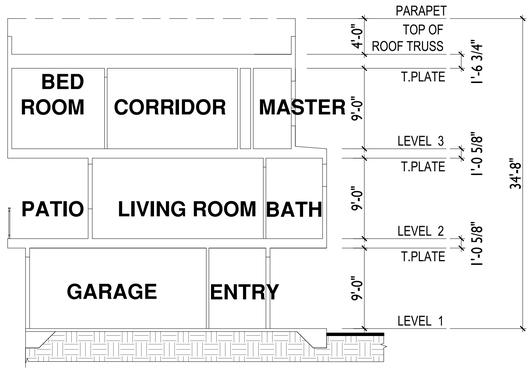

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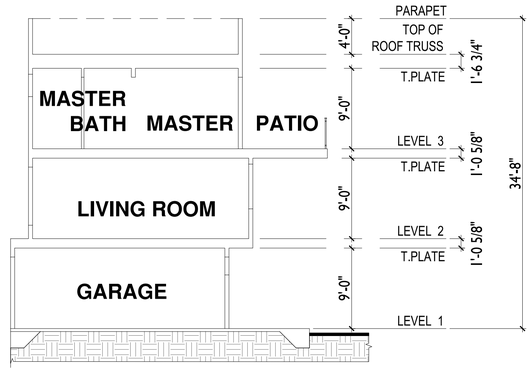

SECTION - D D

SCALE: 1/8" = 1'-0"

A3.24

TOWNHOMES - C4 6 PLEX - SECTIONS

THE RESIDENCES AT CAPITAL CENTER

Rancho Cordova, CA

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FRONT ELEVATION

RIGHT/LEFT ELEVATION

FRONT PERSPECTIVE

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Scale: 3/16" = 1'-0"

A3.25

TOWNHOMES - C5 7PLEX - ELEVATIONS

THE RESIDENCES AT CAPITAL CENTER

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REAR ELEVATION

REAR PERSPECTIVE

GRUPE

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Scale: 3/16" = 1'-0"

A3.26

TOWNHOMES - C5 7PLEX - ELEVATIONS

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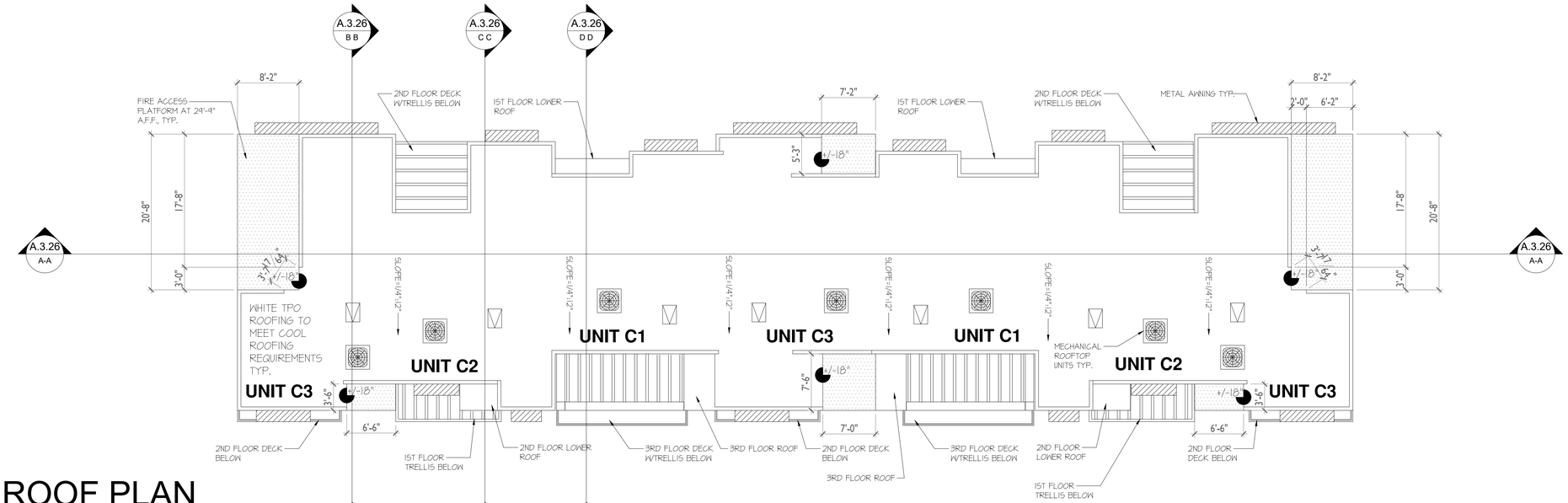
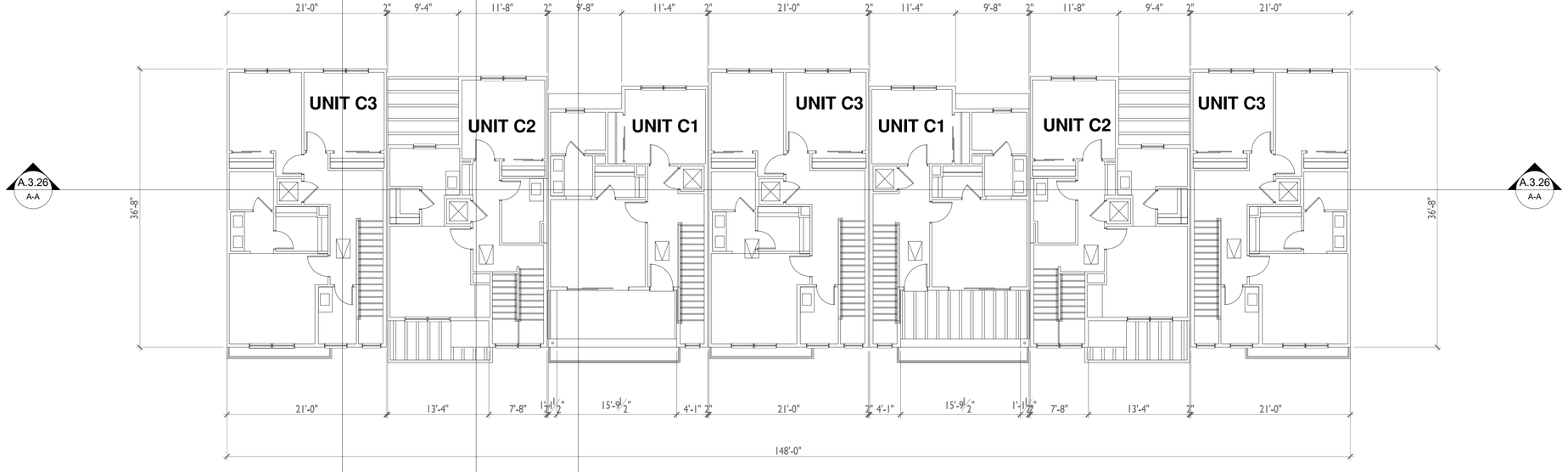


ROOF PLAN



THIRD FLOOR

SCALE: 1/8" = 1'-0"

A3.27

TOWNMHOMES - C5 7 PLEX - FLOOR PLANS

THE RESIDENCES AT CAPITAL CENTER

Rancho Cordova, CA

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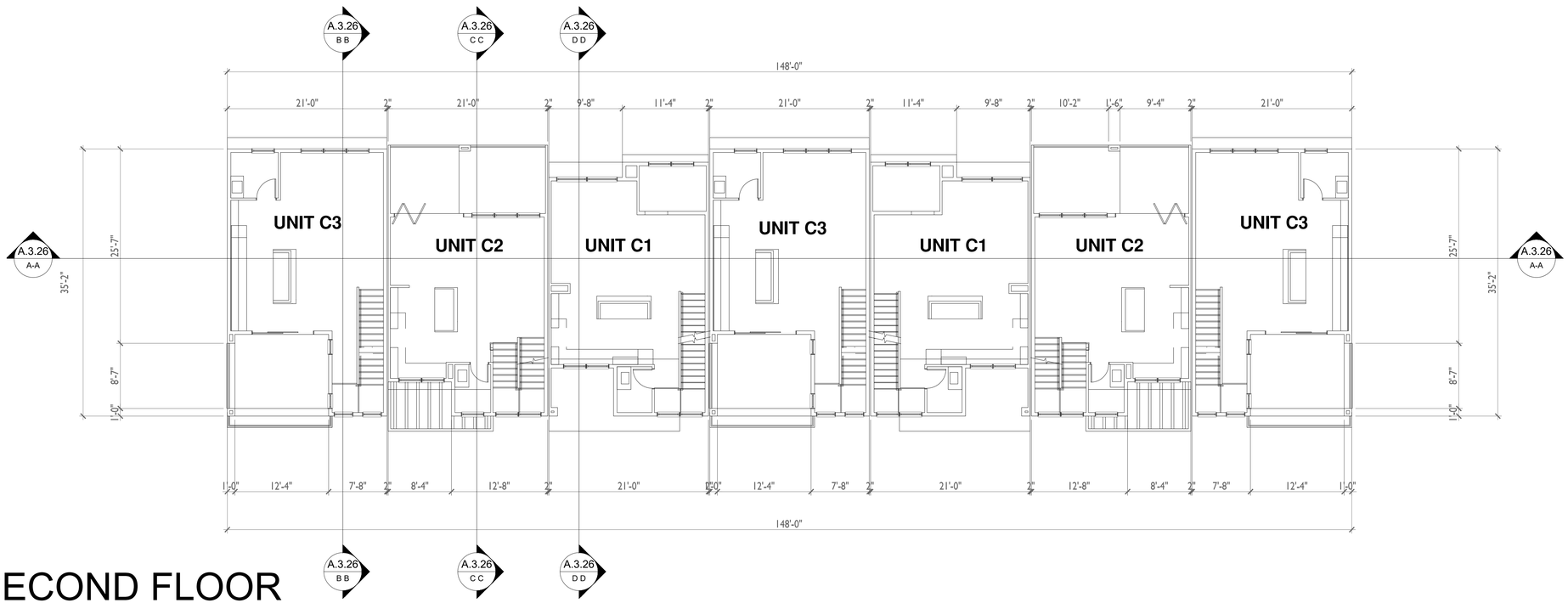
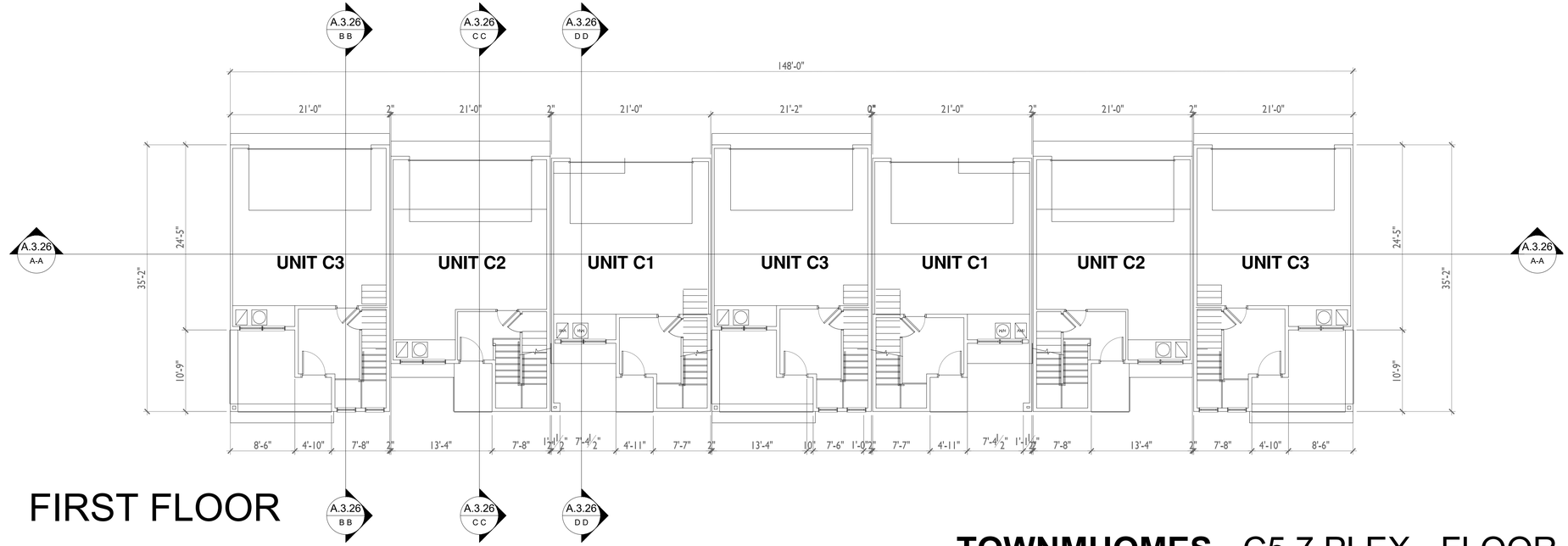


SECOND FLOOR



FIRST FLOOR

7-Plex
Overall Square Footage:

1st Floor Living	1,005 SF
2nd Floor Living	4,096 SF
3rd Floor Living	4,323 SF
Garages	3,340 SF
Net Total	12,764 SF

Unit Mix:

C1:	2 units
C2:	2 units
C3:	3 units
Total:	7 units

SCALE: 1/8" = 1'-0"

A3.28

TOWNMHOMES - C5 7 PLEX - FLOOR & ROOF PLANS

THE RESIDENCES AT CAPITAL CENTER

Rancho Cordova, CA

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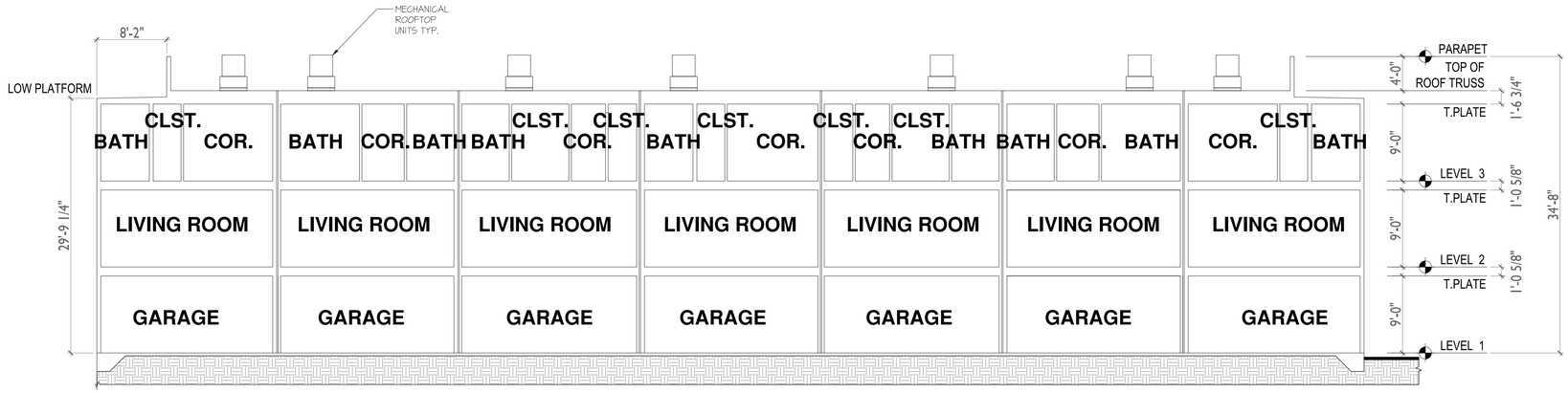
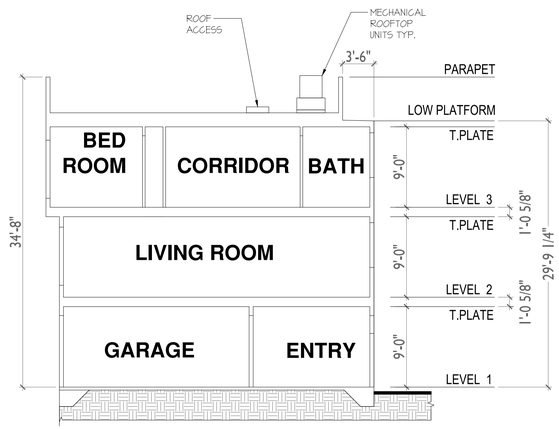


SECTION - A A



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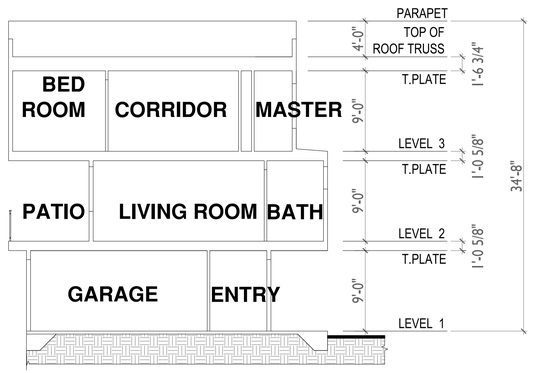
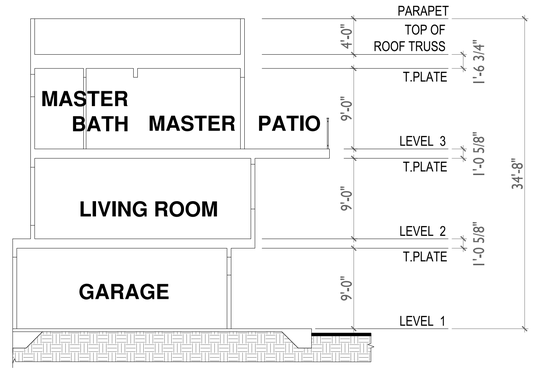


SECTION - C C



SECTION - D D

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REAL ESTATE INVESTMENT, DEVELOPMENT & MANAGEMENT

SCALE: 1/8" = 1'-0"

A3.29

TOWNMHOMES - C5 7 PLEX - SECTIONS

THE RESIDENCES AT CAPITAL CENTER

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FRONT ELEVATION

RIGHT/LEFT ELEVATION

FRONT ELEVATION

Scale: 3/16" = 1'-0"

A3.30

TOWNHOMES - C6 8 PLEX - EXTERIOR ELEVATIONS

THE RESIDENCES AT CAPITAL CENTER

Rancho Cordova, CA

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REAR ELEVATION

REAR PERSPECTIVE

GRUPE

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REAL ESTATE INVESTMENT, DEVELOPMENT & MANAGEMENT

Scale: 3/16" = 1'-0"

A3.31

TOWNHOMES - C6 8 PLEX - EXTERIOR ELEVATIONS

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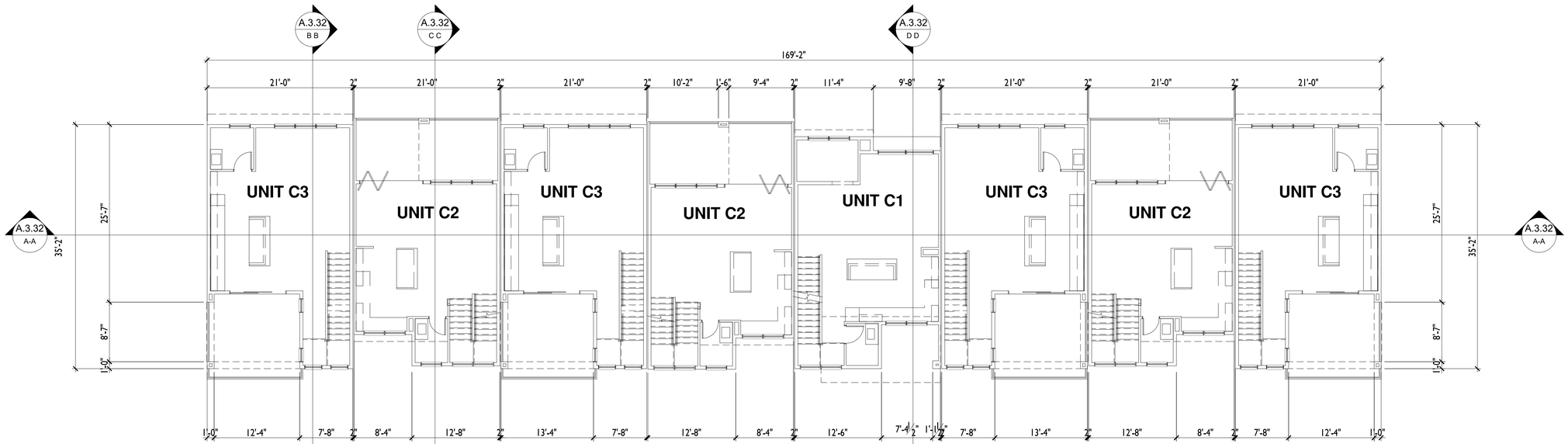
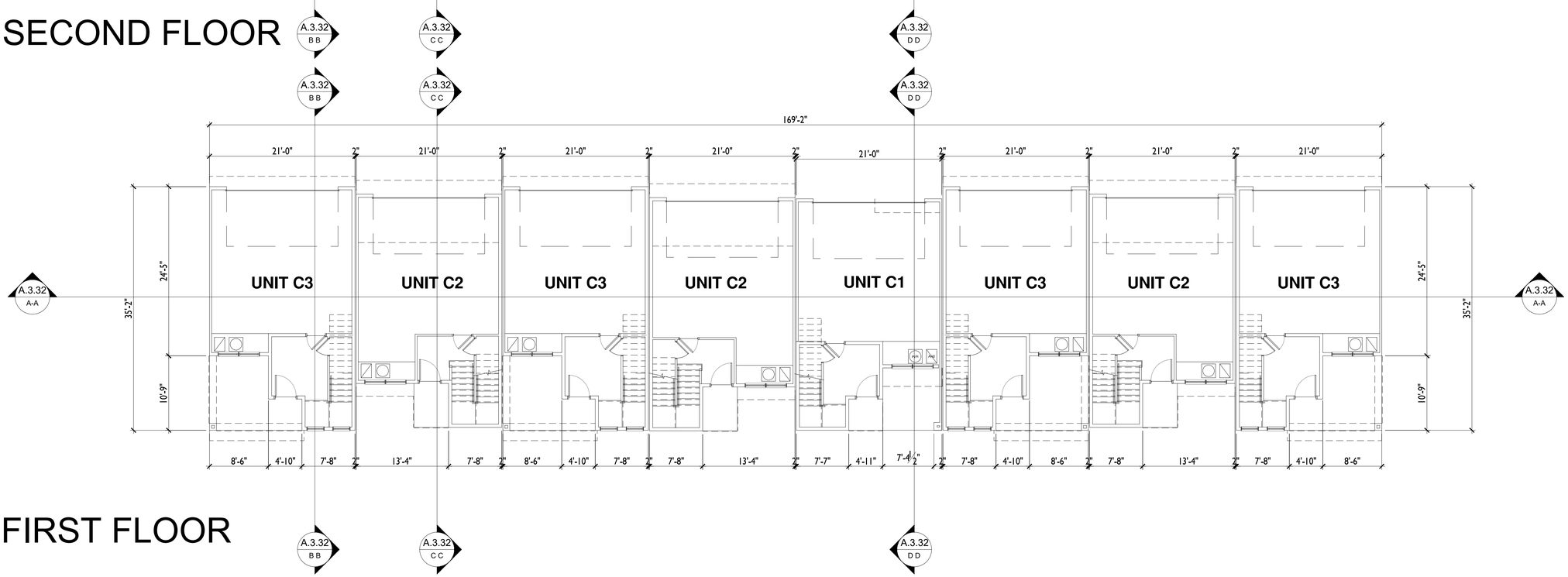


SECOND FLOOR



FIRST FLOOR

8-Plex

Overall Square Footage:	
1st Floor Living	1,156 SF
2nd Floor Living	4,595 SF
3rd Floor Living	5,102 SF
Garages	3,838 SF
Net Total	14,691 SF
Decks	1,393 SF
Porches	547 SF
Gross Total	16,631 SF *

6 = 99,786 SF

Unit Mix:

C1:	1 units
C2:	3 units
C3:	4 units
Total:	8 units

GRUPE

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REAL ESTATE: INVESTMENT, DEVELOPMENT & MANAGEMENT

Scale: 1/8" = 1'-0"

A3.32

TOWNHOMES - C6 8 PLEX - FLOOR PLANS

THE RESIDENCES AT CAPITAL CENTER

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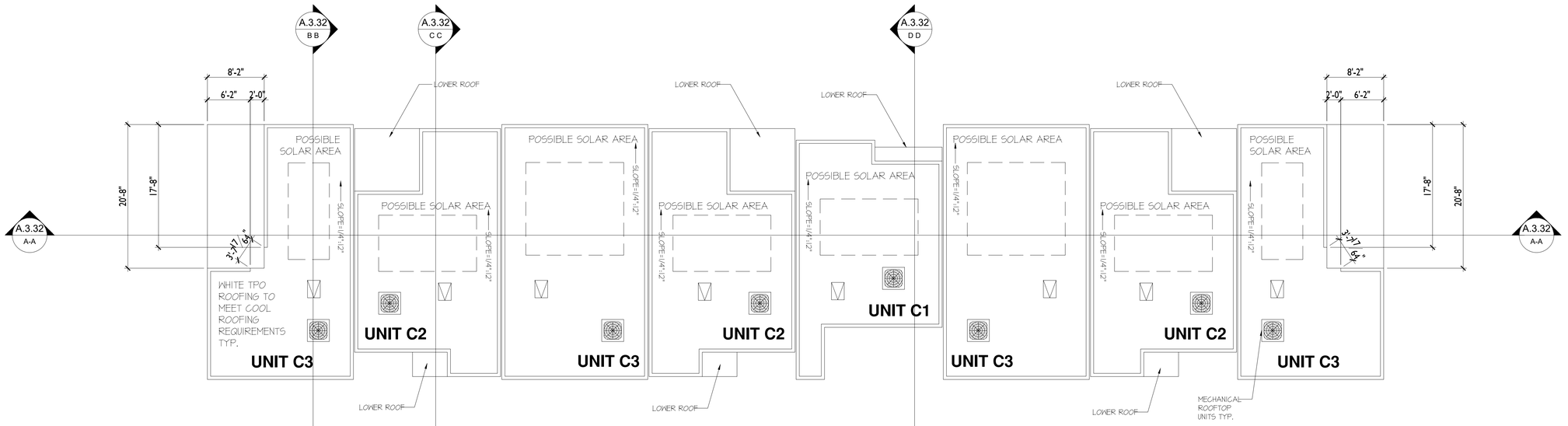
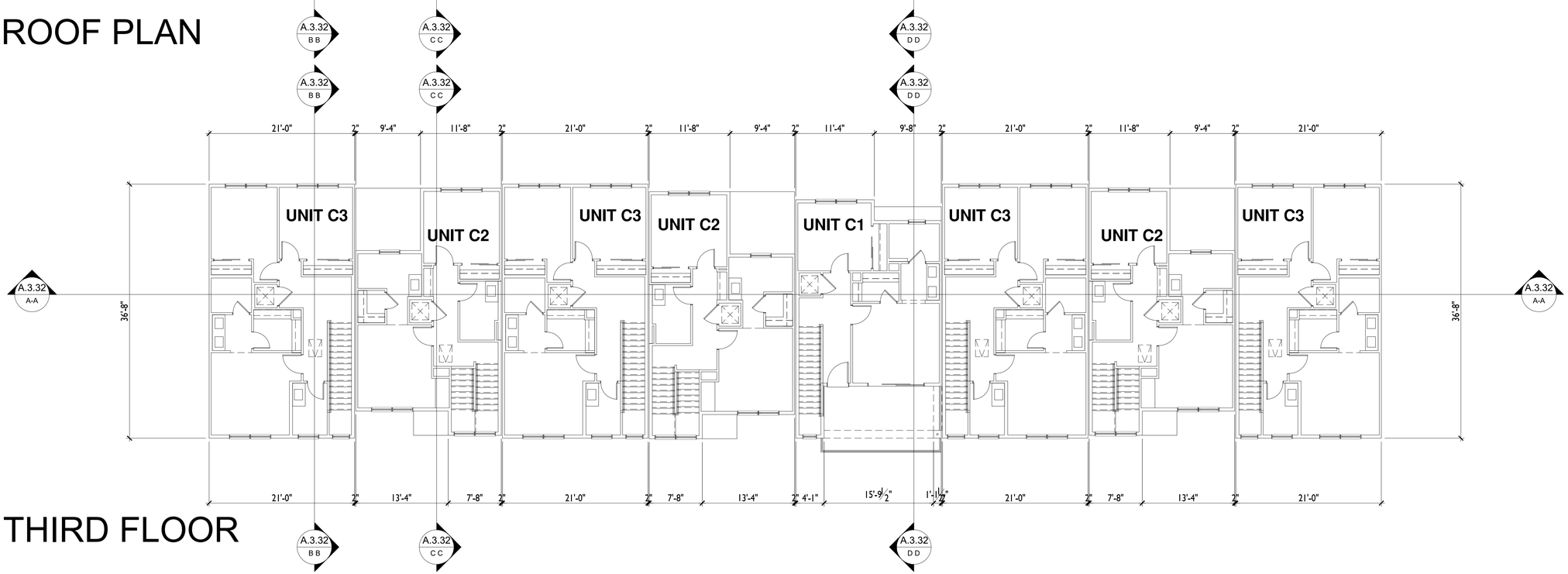


ROOF PLAN



THIRD FLOOR

GRUPE

COLE PARTNERS DEVELOPMENT COMPANY
REAL ESTATE INVESTMENT, DEVELOPMENT & MANAGEMENT

Scale: 1/8" = 1'-0"

A3.33

TOWNHOMES - C6 8 PLEX - FLOOR AND ROOF PLAN

THE RESIDENCES AT CAPITAL CENTER

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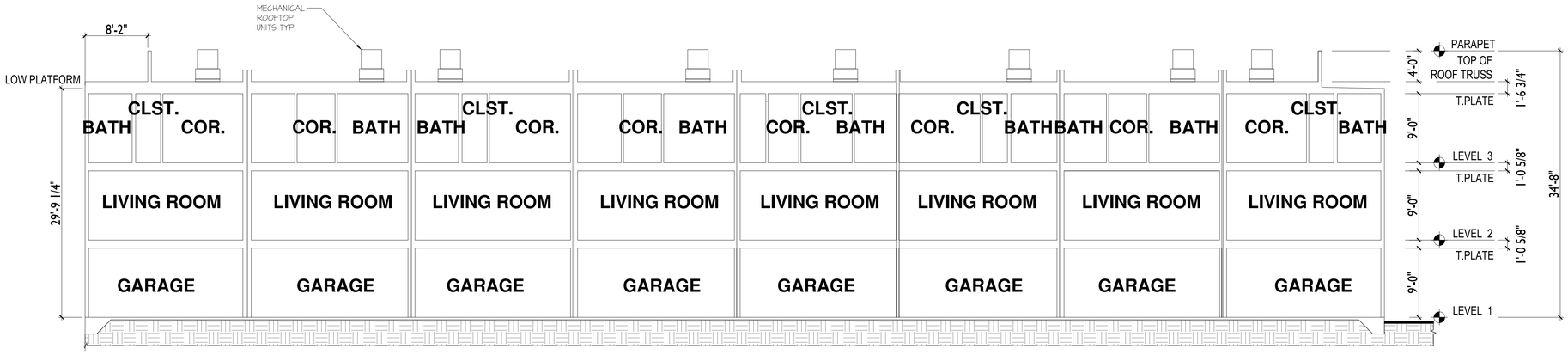
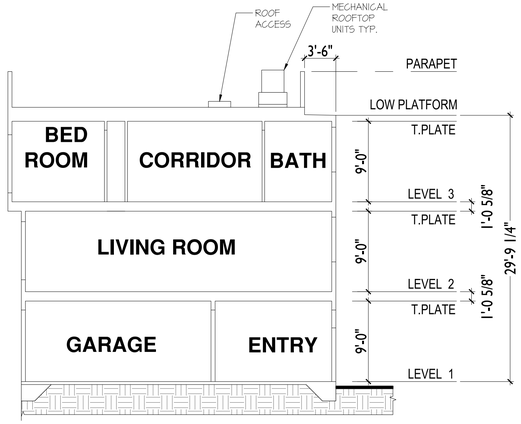


SECTION - A A



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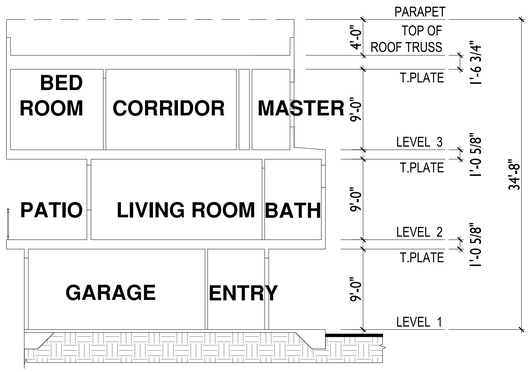

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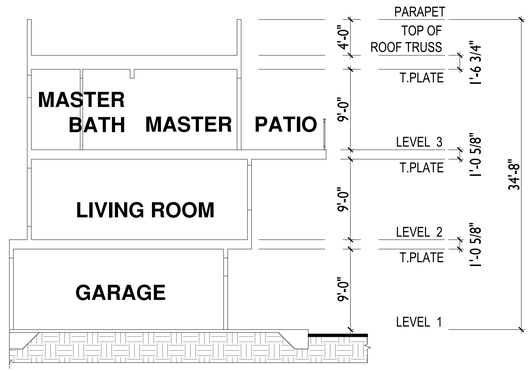

SECTION - D D

GRUPE

COLE PARTNERS DEVELOPMENT COMPANY
REAL ESTATE: INVESTMENT, DEVELOPMENT & MANAGEMENT

A3.34

TOWNHOME C6 8 PLEX - SECTION PLANS

THE RESIDENCES AT CAPITAL CENTER

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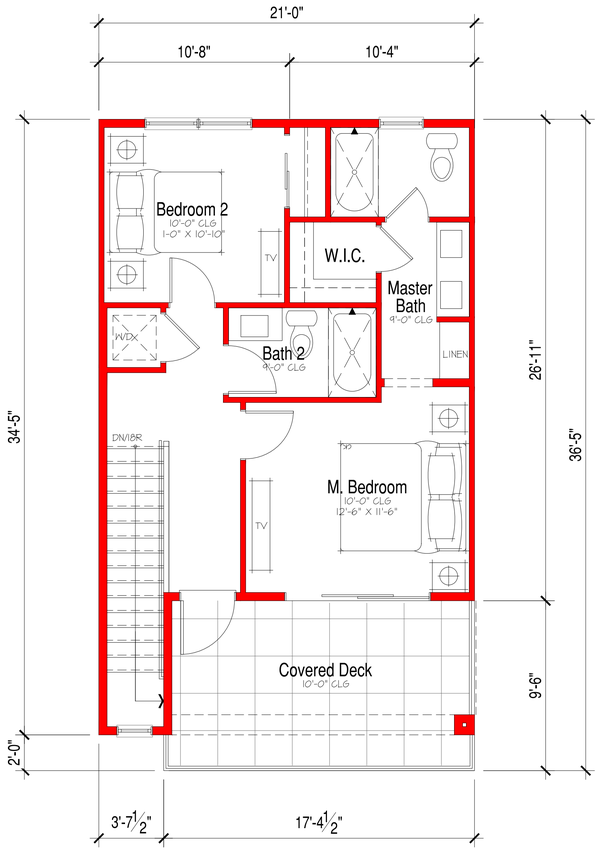
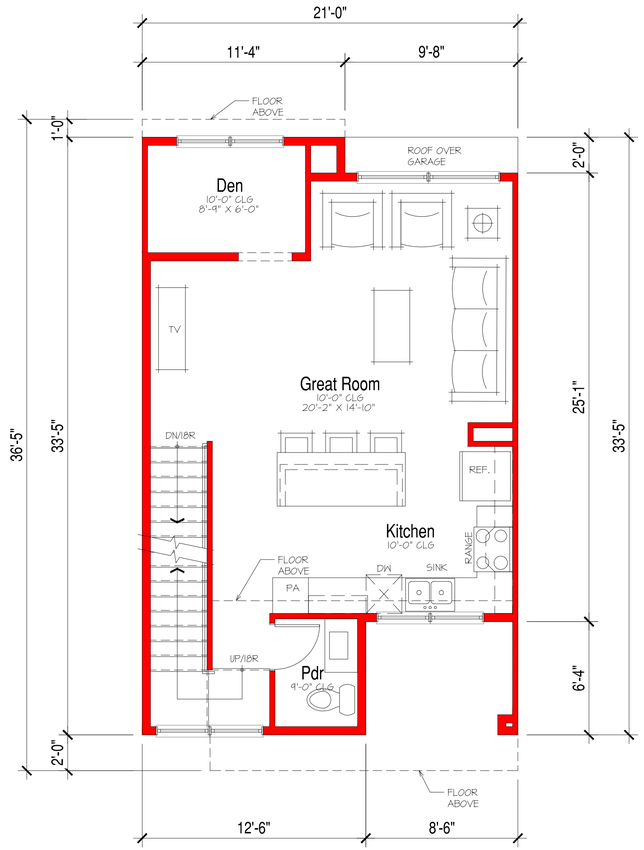


THIRD FLOOR



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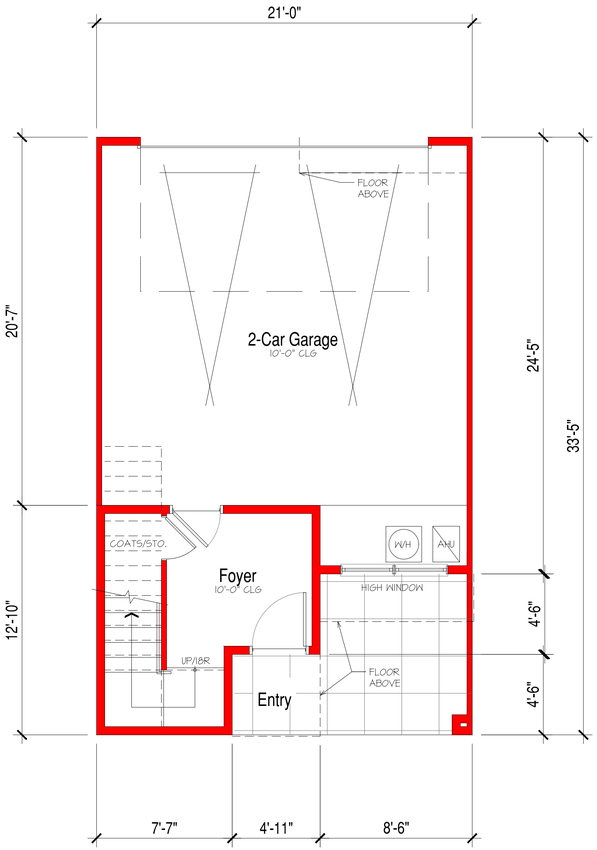

FIRST FLOOR

Unit - C1

First floor:	138 s.f.
Second floor:	625 s.f.
Third floor:	534 s.f.
Total:	1,297 s.f.
Garage:	465 s.f.
Deck:	162 s.f.

ENLARGED UNIT PLANS - C1

Scale: 1/4" = 1'-0"

A3.35

TOWNHOMES GARDEN - ENLARGED UNIT PLANS

THE RESIDENCES AT CAPITAL CENTER

Rancho Cordova, CA

GRUPE

COLE PARTNERS DEVELOPMENT COMPANY
REAL ESTATE INVESTMENT, DEVELOPMENT & MANAGEMENT

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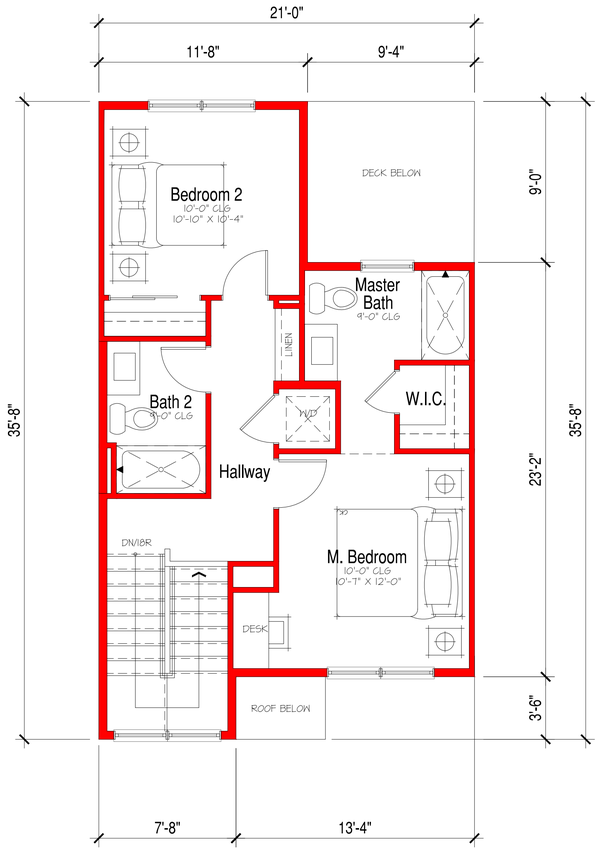
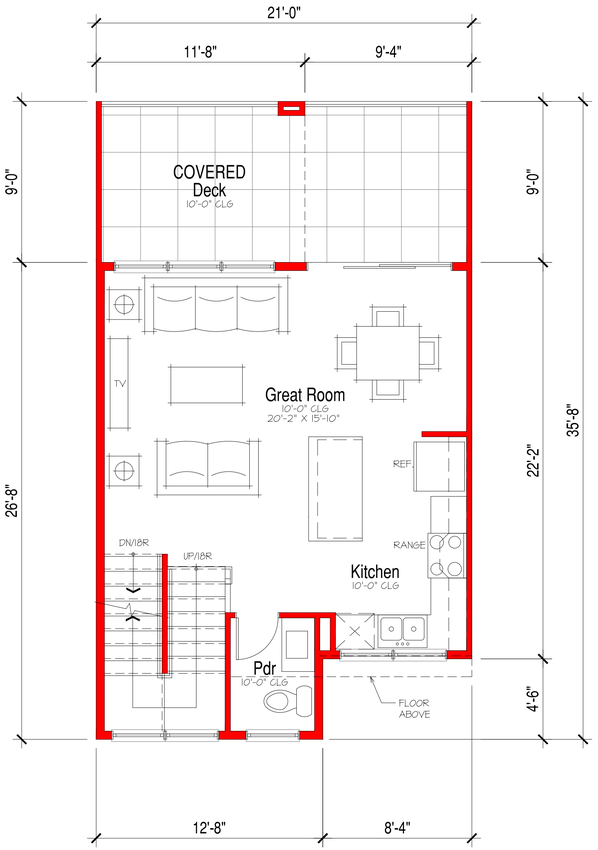


THIRD FLOOR



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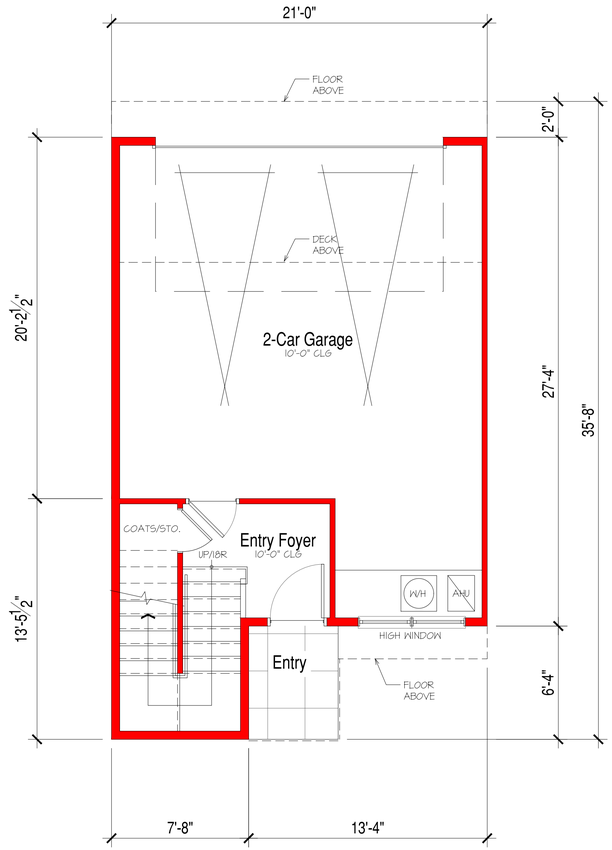

FIRST FLOOR

Unit - C2

First floor:	138 s.f.
Second floor:	523 s.f.
Third floor:	545 s.f.
Total:	1,206 s.f.
Garage:	485 s.f.
Deck:	189 s.f.

ENLARGED UNIT PLANS - C2

Scale: 1/4" = 1'-0"

A3.36

TOWNHOMES GARDEN - ENLARGED UNITPLANS

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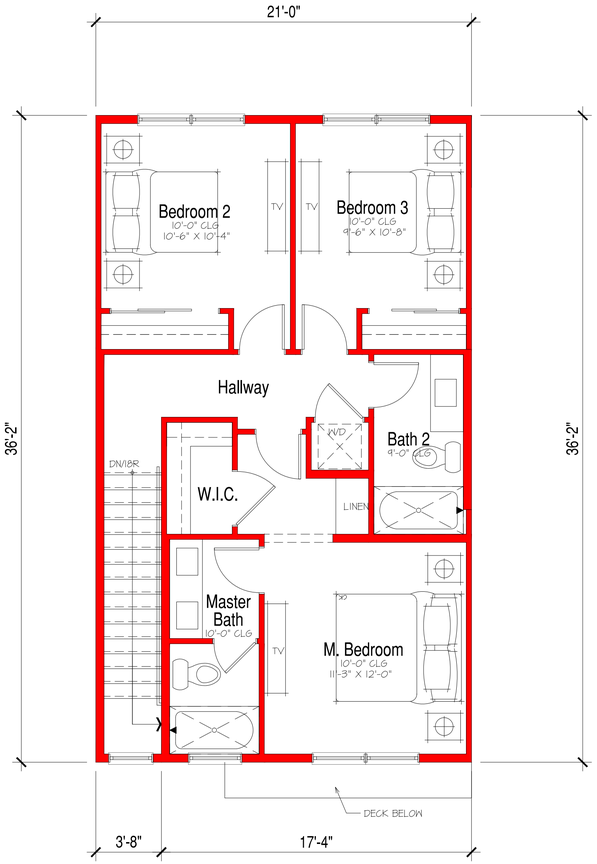

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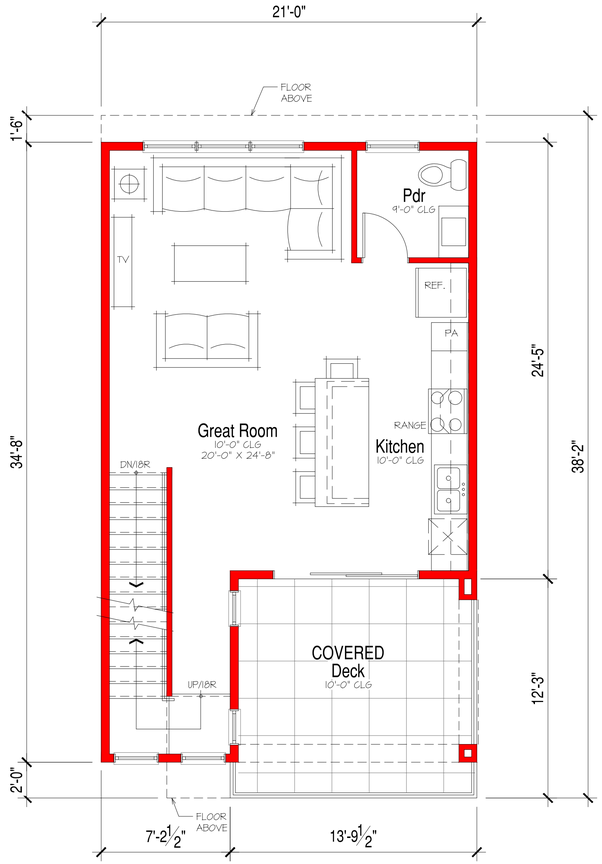

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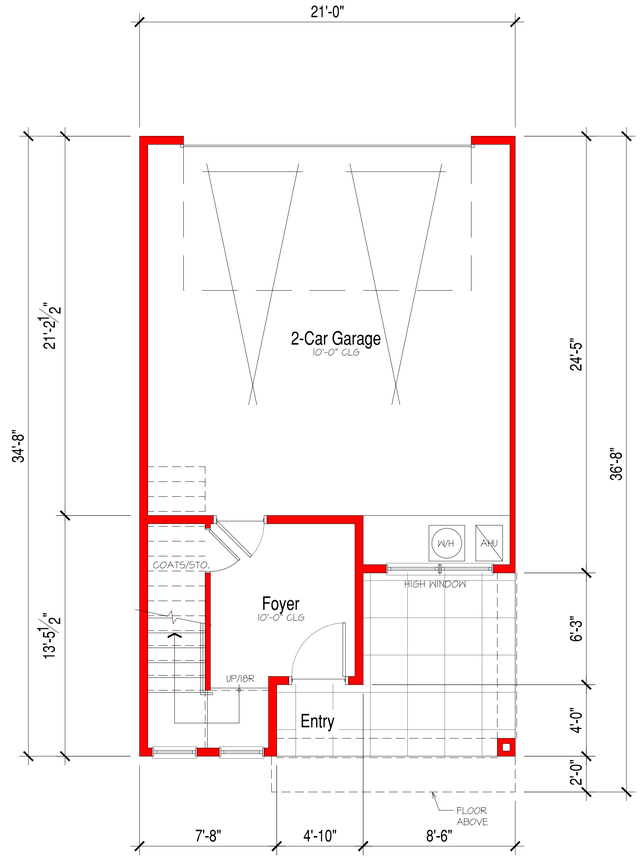

FIRST FLOOR

Unit - C3

First floor:	149 s.f.
Second floor:	591 s.f.
Third floor:	700 s.f.
Total:	1,440 s.f.
Garage:	473 s.f.
Deck:	164 s.f.

ENLARGED UNIT PLANS - C3

Scale: 1/4" = 1'-0"

A3.37

TOWNHOMES GARDEN - ENLARGED UNITPLANS

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STREET PERSPECTIVE

SIDE ELEVATION

CORNER PERSPECTIVE

SIDE ELEVATION

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A3.38

TOWNHOMES - SITE VIGNETTES

RANCHO CORDOVA MASTER PLAN

Rancho Cordova, CA

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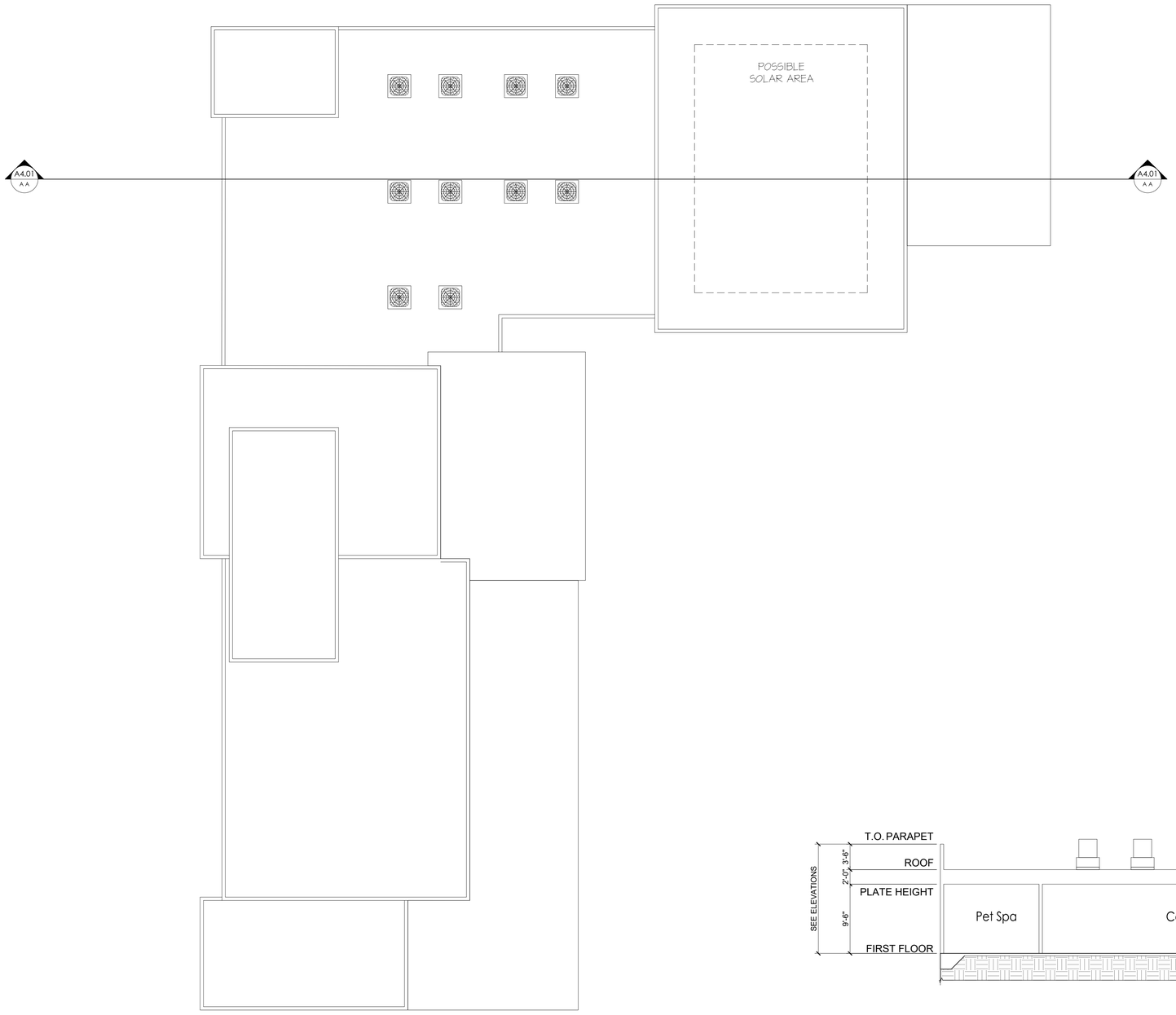
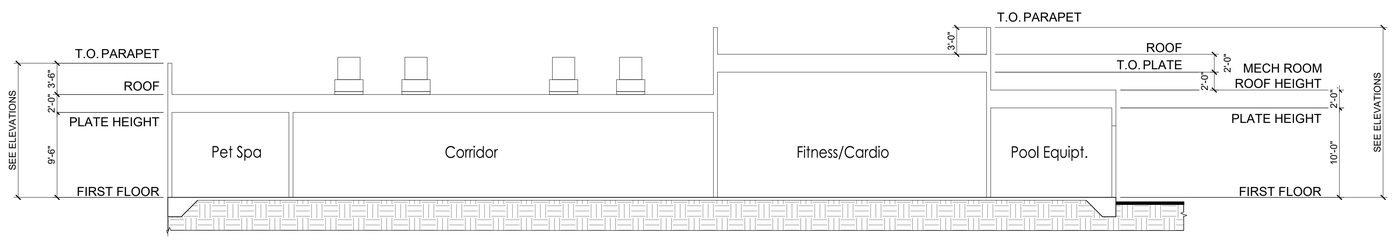


ROOF PLAN
Scale: 1/8" = 1'-0"



SECTION A A

Scale: 1/8" = 1'-0"

A4.01

TOWNHOMES CLUBHOUSE - FLOOR & ROOF PLAN

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FRONT ELEVATION

LEFT ELEVATION

Scale: 3/16" = 1'-0"

A4.02

TOWNHOMES CLUBHOUSE - ELEVATIONS

THE RESIDENCES AT CAPITAL CENTER

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REAR ELEVATION

LEFT ELEVATION

Scale: 3/16" = 1'-0"

A4.03

TOWNHOMES CLUBHOUSE - ELEVATIONS

THE RESIDENCES AT CAPITAL CENTER

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VIEW FROM PARKING

VIEW AT POOL AREA

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A4.04

TOWNHOMES CLUBHOUSE - VIGNETTES

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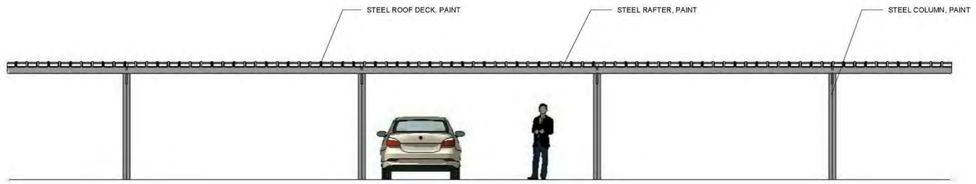
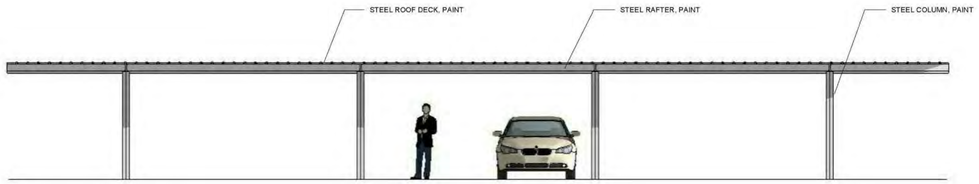
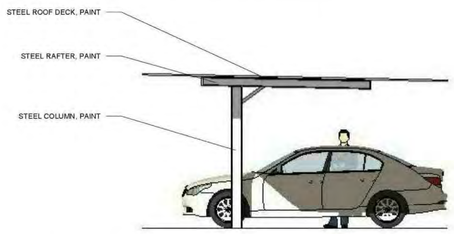


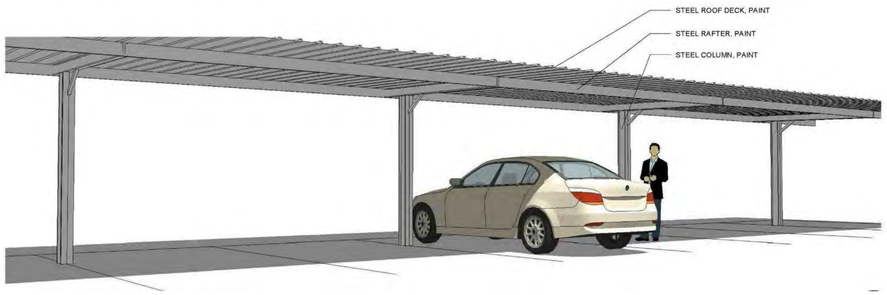
1 FRONT ELEVATION - CARPORT
NTS

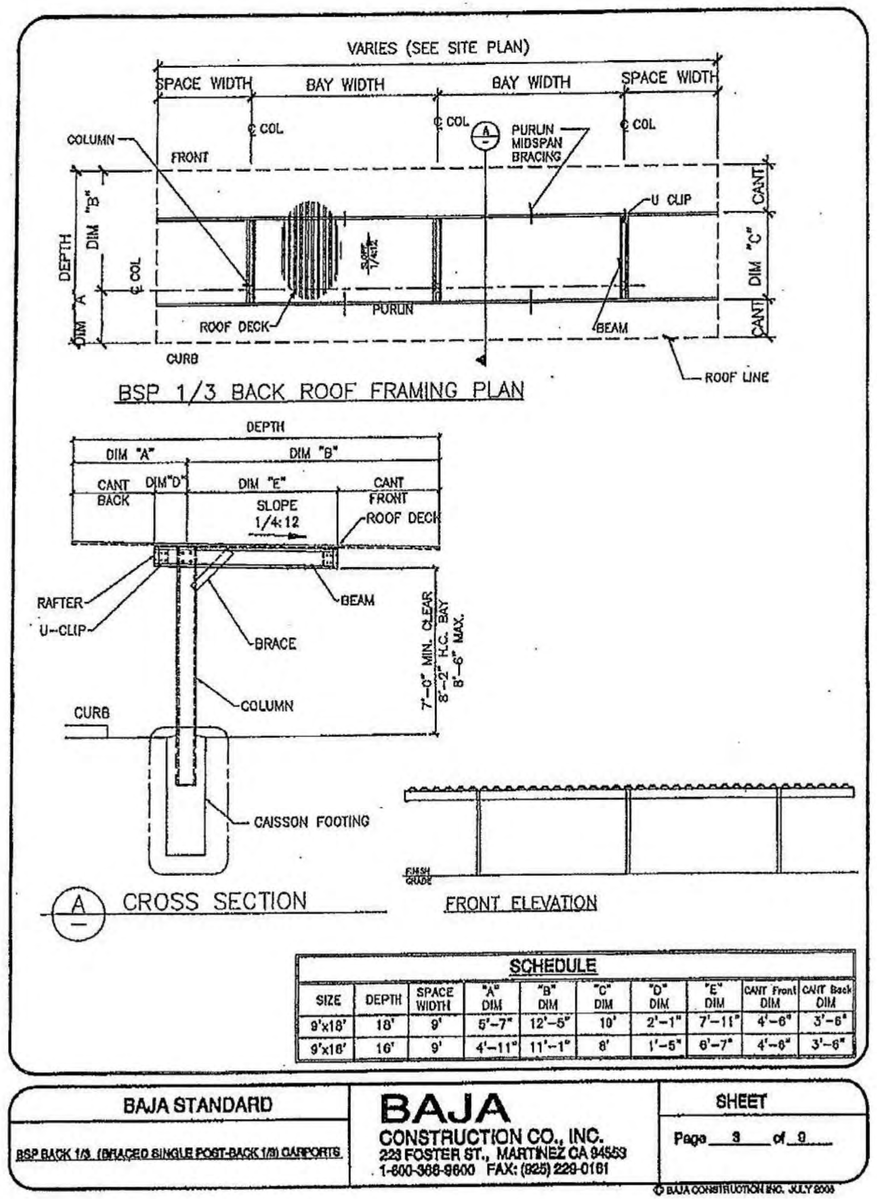


2 REAR ELEVATION - CARPORT
NTS



3 TYPICAL SIDE ELEVATON - CARPORT
NTS





SCHEDULE									
SIZE	DEPTH	SPACE WIDTH	"A" DIM	"B" DIM	"C" DIM	"D" DIM	"E" DIM	CANT Front DIM	CANT Back DIM
9'x18'	18'	9'	5'-7"	12'-5"	10'	2'-1"	7'-11"	4'-6"	3'-6"
9'x16'	16'	9'	4'-11"	11'-1"	8'	1'-5"	6'-7"	4'-6"	3'-6"

BAJA STANDARD	BAJA	SHEET
BSP BACK 1/3 (BRACED SINGLE POST-BACK 1/3) CARPORTS.	CONSTRUCTION CO., INC. 223 FOSTER ST., MARTINEZ CA 94553 1-800-368-9600 FAX: (925) 229-0161	Page 3 of 9

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PLANS, SECTIONS AND ELEVATIONS

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A5.01

SITE DETAILS - CARPORT

THE RESIDENCES AT CAPITAL CENTER

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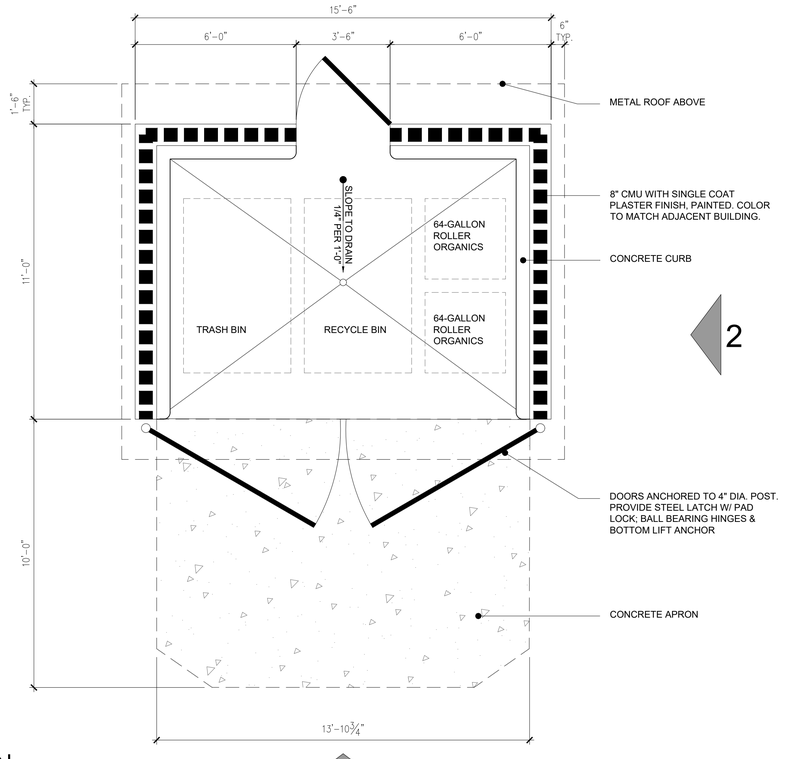
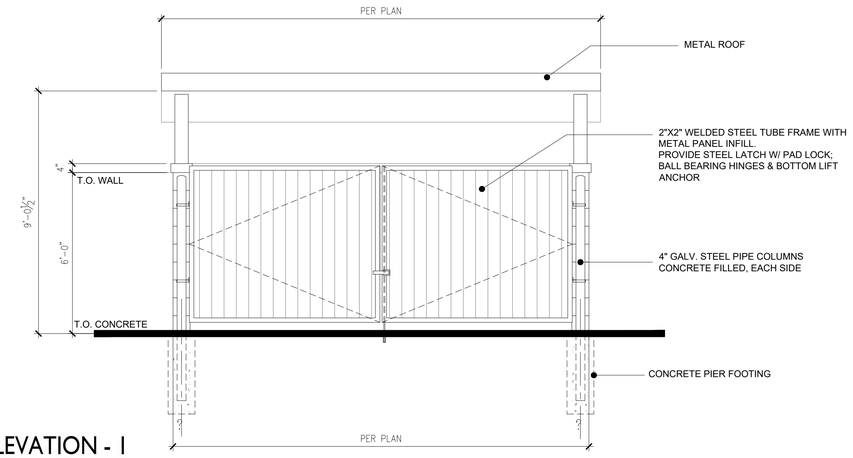
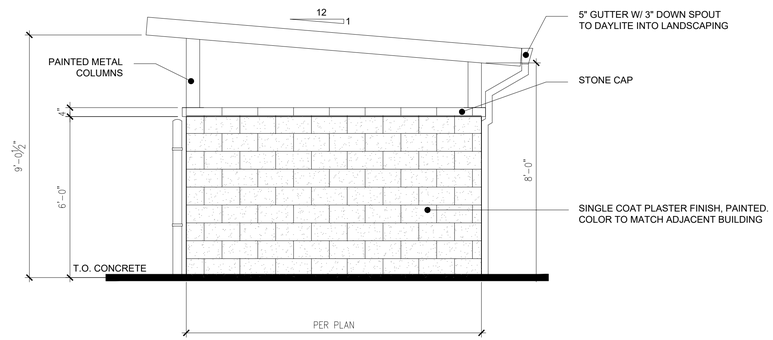


FLOOR PLAN
SCALE: 1/4"=1'-0"

1



FRONT ELEVATION - 1
SCALE: 1/4"=1'-0"



SIDE ELEVATION - 2
SCALE: 1/4"=1'-0"

TRASH PERSPECTIVE
SCALE: NOT TO SCALE

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REAL ESTATE INVESTMENT, DEVELOPMENT & MANAGEMENT

SITE DETAILS

A5.05
SITE DETAILS - TRASH ENCLOSURE
THE RESIDENCES AT CAPITAL CENTER
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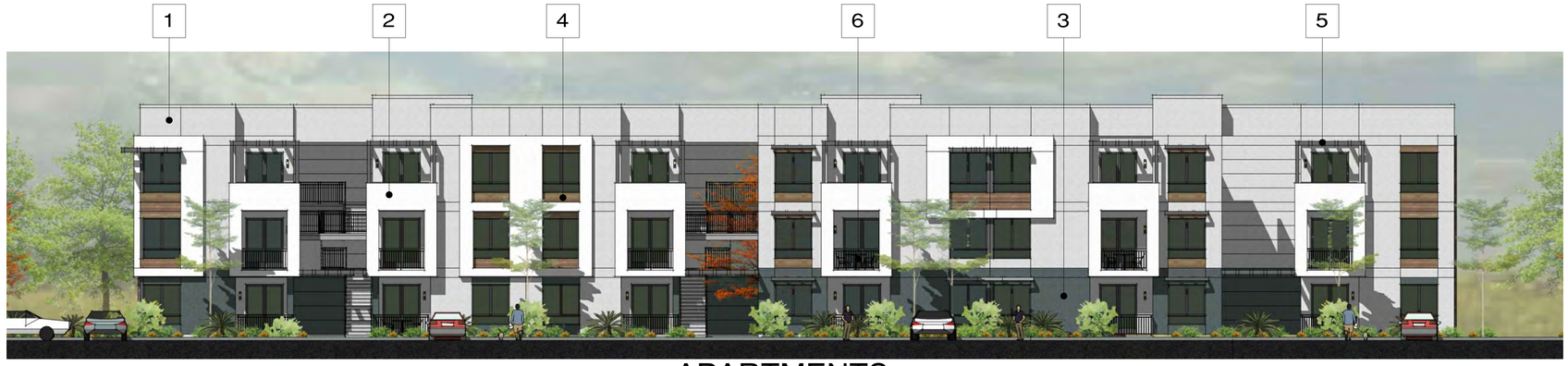

APARTMENTS

TOWNHOMES - FRONT LOAD

TOWNHOMES - GARDEN

MATERIAL & COLOR BOARD

LEGEND & KEYNOTES:

1 STUCCO - SW 7006
EXTRA WHITE
OR APPROVED EQUAL

FOR REFERENCE ONLY

2 STUCCO ACCENT - SW7757
HIGH REFLECTIVE WHITE
OR APPROVED EQUAL

6 RAILING - SW7068
GRIZZLE GRAY
OR APPROVED EQUAL

3 STUCCO ACCENT- SW6215
ROCKY RIVER
OR APPROVED EQUAL

7 GARAGE DOOR - SW7068
GRIZZLE GRAY
OR APPROVED EQUAL

4 SIDING - COMPOSITE
"WOOD" FIBER CEMENT
OR ALUMINUM WOOD TEXTURED
OR APPROVED EQUAL

8 STUCCO ACCENT - SW7068
GRIZZLE GRAY
OR APPROVED EQUAL

5 TRELLIS/AWNING - SW7068
GRIZZLE GRAY
OR APPROVED EQUAL

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A5.03

EXTERIOR ELEVATIONS

THE RESIDENCES AT CAPITAL CENTER

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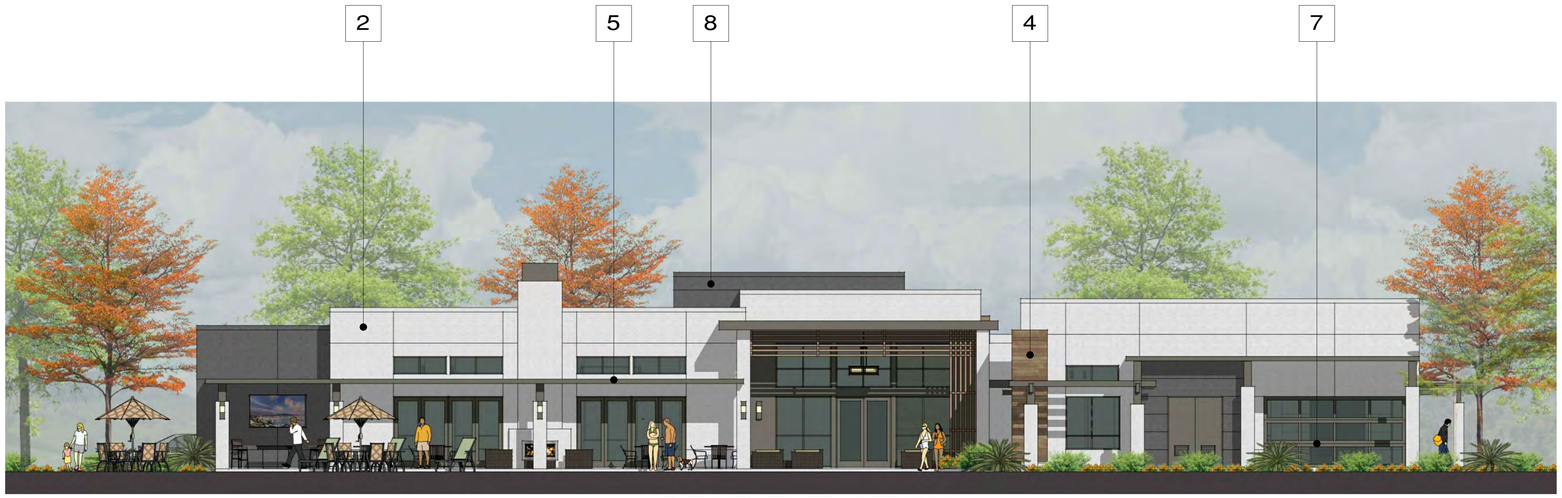
FRONT ELEVATION



REAR ELEVATION

LEGEND & KEYNOTES:

1 STUCCO - SW 7006
EXTRA WHITE
OR APPROVED EQUAL

FOR REFERENCE ONLY

2 STUCCO ACCENT - SW7757
HIGH REFLECTIVE WHITE
OR APPROVED EQUAL

6 RAILING - SW7068
GRIZZLE GRAY
OR APPROVED EQUAL

3 STUCCO ACCENT- SW6215
ROCKY RIVER
OR APPROVED EQUAL

7 GARAGE DOOR - SW7068
GRIZZLE GRAY
OR APPROVED EQUAL

4 SIDING - COMPOSITE
"WOOD" FIBER CEMENT
OR ALUMINUM WOOD TEXTURED
OR APPROVED EQUAL

8 STUCCO ACCENT - SW7068
GRIZZLE GRAY
OR APPROVED EQUAL

NOTE:
OTHER COLORS MAY NOT BE APPLICABLE

5 TRELLIS/AWNING - SW7068
GRIZZLE GRAY
OR APPROVED EQUAL

MATERIAL & COLOR BOARD

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A5.04

TOWNHOMES CLUBHOUSE

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FRONT ELEVATION

REAR ELEVATION

RIGHT ELEVATION

LEGEND & KEYNOTES:

1 STUCCO - SW 7006
EXTRA WHITE
OR APPROVED EQUAL

2 STUCCO ACCENT - SW7757
HIGH REFLECTIVE WHITE
OR APPROVED EQUAL

3 STUCCO ACCENT- SW6215
ROCKY RIVER
OR APPROVED EQUAL

4 SIDING - COMPOSITE
"WOOD" FIBER CEMENT
OR ALUMINUM WOOD TEXTURED
OR APPROVED EQUAL

5 TRELLIS/AWNING - SW7068
GRIZZLE GRAY
OR APPROVED EQUAL

FOR REFERENCE ONLY

6 RAILING/GUARDRAIL - TEMPERED
GLASS & STAINLESS STEEL
OR APPROVED EQUAL

7 GARAGE DOOR - SW7068
GRIZZLE GRAY
OR APPROVED EQUAL

8 STUCCO ACCENT - SW7068
GRIZZLE GRAY
OR APPROVED EQUAL

NOTE:
OTHER COLORS MAY NOT BE APPLICABLE

MATERIAL & COLOR BOARD

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A5.05

APARTMENTS CLUBHOUSE

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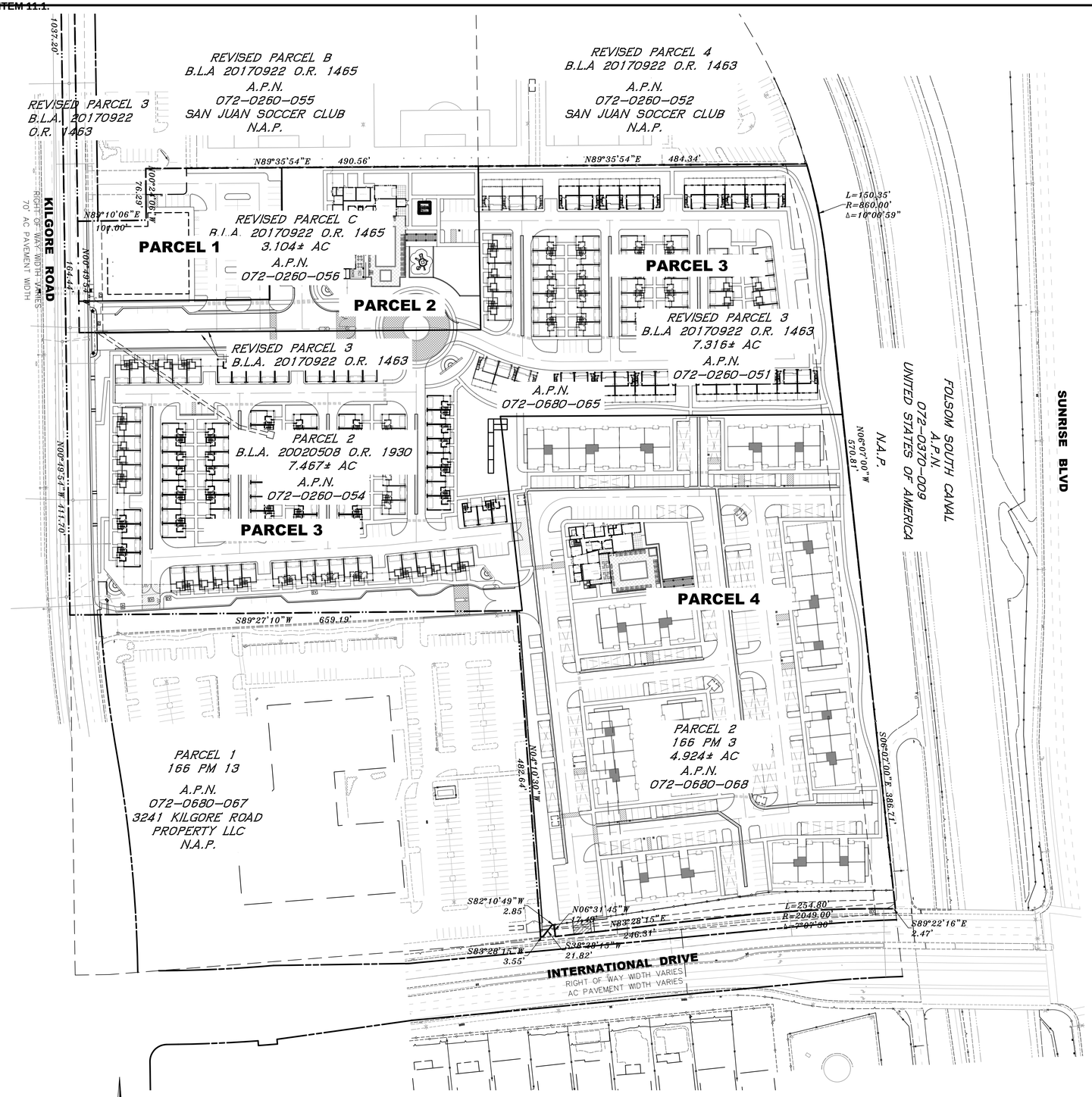
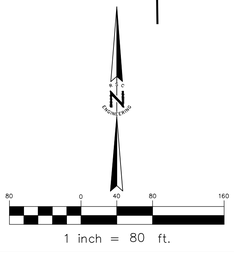




LEGEND

EXISTING BOUNDARY LINE

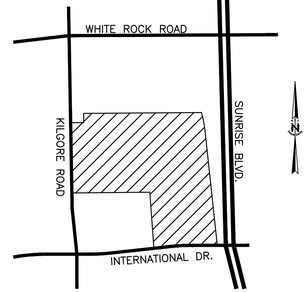
EXISTING RIGHT OF WAY

EXISTING EASEMENT

PROPOSED PARCEL LINE

SHEET INDEX:

1.	CV1	COVER SHEET
2.	NT1	BUILDING SUMMARY
3.	EX1	EXISTING CONDITIONS
4.	GR1	PRELIMINARY OVERALL GRADING PLAN
5.	GR2	PRELIMINARY GRADING PLAN
6.	GR3	PRELIMINARY GRADING PLAN
7.	GR4	PRELIMINARY GRADING PLAN
8.	GR5	PRELIMINARY GRADING PLAN
9.	GR6	PRELIMINARY GRADING PLAN
10.	GR7	GRADING SECTIONS
11.	GR8	GRADING SECTIONS
12.	UT1	PRELIMINARY OVERALL UTILITY PLAN
13.	UT2	PRELIMINARY UTILITY PLAN
14.	UT3	PRELIMINARY UTILITY PLAN
15.	UT4	PRELIMINARY UTILITY PLAN
16.	UT5	PRELIMINARY UTILITY PLAN



VICINITY MAP

PROJECT DATA

OWNER/DEVELOPER

GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE, SUITE 101
SACRAMENTO, CA 95833
ATTN: ROB COLE
(916) 273-4020
RCOLE@COLEPARTNERS.COM

APPLICANT/ENGINEER

RSC ENGINEERING, INC.
1420 ROCKY RIDGE DR, SUITE 150
ROSEVILLE, CA 95661
ATTN: TIFFANY WILSON
(916) 788-2884
T.WILSON@RSC-ENGR.COM

APN

072-0260-051, 054, AND 056
072-0680-065 AND 068

EXISTING ZONING

OPMU (OFFICE PROFESSIONAL MIXED USE)

EXISTING GENERAL PLAN DESIGNATION

OMU (OFFICE MIXED USE)

EXISTING PARCEL SIZE

072-0260-051:	7.316± AC
072-0260-054:	7.467± AC
072-0260-056:	3.104± AC
072-0680-068:	4.924± AC
TOTAL:	22.811± AC

PROPOSED PARCEL SIZES

PARCEL 1:	1.083± AC
PARCEL 2:	2.022± AC
PARCEL 3:	10.938± AC
PARCEL 4:	8.769± AC
TOTAL:	22.811± AC

BUILDING AREA

SEE SHEET NT1 FOR PROPOSED BUILDING SIZES

FAR PROPOSED

0.63 (624,310 SF/993,647 SF)

FAR REQUIRED

MINIMUM:	0.25
MAXIMUM:	2.00

SETBACK REQUIREMENTS

TOTAL:	10'
STREET SIDE:	10'
INTERIOR SIDE:	0'
BACK:	10'

BUILDING HEIGHT

APARTMENTS:	38'
TOWNHOMES:	24' (B-UNIT) 34' (C-UNIT)
CLUBHOUSES:	32'

PARKING SUMMARY

2.20 STALLS/UNIT

FEMA DESIGNATION

ZONE X 06067C0209H
DATED 8/16/2012

OPEN SPACE CALCULATIONS

24.2% (240,542 SF/993,647 SF)

TYPE OF CONSTRUCTION

APARTMENTS:	R-2 OCC. V-A CONSTRUCTION
TOWNHOMES:	R-3 OCC. V-B CONSTRUCTION
CLUBHOUSES:	A-2 OCC. V-B CONSTRUCTION

SPRINKLERED

APARTMENTS:	NFPA 13 SYSTEM
TOWNHOMES:	NFPA 13D SYSTEM
CLUBHOUSES:	NFPA 13 SYSTEM

GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
SACRAMENTO, CA 95833

REV NO.	DATE	DESCRIPTION	ENG INT.	BY	DATE CITY APPROVED

RSC ENGINEERING
1420 Rocky Ridge Drive, Suite 150
Roseville, CA 95661
Ph: 916.788.2884 Fax: 916.788.4408

PROJECT NO:	247-003
DRAWN BY:	RSC Eng
CHECKED BY:	RSC Eng
DESIGNED BY:	RSC Eng

PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER
NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
COVER SHEET

SHEET NO.
CV
OF

DATE: JUNE 8, 2022

Xrefs: P:\247-003\Planning\Concepts\247003_XREFIN.dwg
P:\247-003\Planning\Concepts\247003_XTOP.dwg
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USER: MPRESTON
LAST SAVED: Jun 07, 22 - 14:48
PLOT DATE: Jun 07, 2022 - 2:48:34 PM

PROPOSED BUILDING SUMMARY

B-UNIT TOWNHOMES (REAR YARDS)

3–PLEX (24' BUILDING HEIGHT)

FIRST FLOOR LIVING:	1,836 SF
SECOND FLOOR LIVING:	2,240 SF
GARAGES:	1,200 SF
NET TOTAL:	5,276 SF
PORCHES:	49 SF
GROSS TOTAL:	5,325 SF * 2 = 10,650 SF

5–PLEX (24' BUILDING HEIGHT)

FIRST FLOOR LIVING:	3,084 SF
SECOND FLOOR LIVING:	3,838 SF
GARAGES:	2,003 SF
NET TOTAL:	8,925 SF
PORCHES:	50 SF
GROSS TOTAL:	8,975 SF * 2 = 17,950 SF

6–PLEX (24' BUILDING HEIGHT)

FIRST FLOOR LIVING:	3,679 SF
SECOND FLOOR LIVING:	4,480 SF
GARAGES:	2,402 SF
NET TOTAL:	10,561 SF
PORCHES:	100 SF
GROSS TOTAL:	10,661 SF * 2 = 21,322 SF

C-UNIT TOWNHOMES (GARDEN WALK-UP)

3–PLEX (34' BUILDING HEIGHT)

FIRST FLOOR LIVING:	427 SF
SECOND FLOOR LIVING:	1,646 SF
THIRD FLOOR LIVING:	1,831 SF
GARAGES:	1,451 SF
NET TOTAL:	5,355 SF
DECKS:	544 SF
PORCHES:	171 SF
GROSS TOTAL:	6,070 SF * 1 = 6,070 SF

4–PLEX (34' BUILDING HEIGHT)

FIRST FLOOR LIVING:	578 SF
SECOND FLOOR LIVING:	2,241 SF
THIRD FLOOR LIVING:	2,569 SF
GARAGES:	1,927 SF
NET TOTAL:	7,315 SF
DECKS:	709 SF
PORCHES:	278 SF
GROSS TOTAL:	8,302 SF * 1 = 8,302 SF

5–PLEX (34' BUILDING HEIGHT)

FIRST FLOOR LIVING:	727 SF
SECOND FLOOR LIVING:	2,837 SF
THIRD FLOOR LIVING:	3,306 SF
GARAGES:	2,406 SF
NET TOTAL:	9,276 SF
DECKS:	873 SF
PORCHES:	385 SF
GROSS TOTAL:	10,534 SF * 2 = 21,068 SF

6–PLEX (34' BUILDING HEIGHT)

FIRST FLOOR LIVING:	865 SF
SECOND FLOOR LIVING:	3,467 SF
THIRD FLOOR LIVING:	3,814 SF
GARAGES:	2,872 SF
NET TOTAL:	11,018 SF
DECKS:	1,041 SF
PORCHES:	486 SF
GROSS TOTAL:	12,545 SF * 7 = 87,815 SF

7–PLEX (34' BUILDING HEIGHT)

FIRST FLOOR LIVING:	1,005 SF
SECOND FLOOR LIVING:	4,096 SF
THIRD FLOOR LIVING:	4,323 SF
GARAGES:	3,340 SF
NET TOTAL:	12,764 SF
DECKS:	1,206 SF
PORCHES:	584 SF
GROSS TOTAL:	14,554 SF * 6 = 87,324 SF

8–PLEX (34' BUILDING HEIGHT)

FIRST FLOOR LIVING:	1,156 SF
SECOND FLOOR LIVING:	4,595 SF
THIRD FLOOR LIVING:	5,102 SF
GARAGES:	3,838 SF
NET TOTAL:	14,691 SF
DECKS:	1,393 SF
PORCHES:	547 SF
GROSS TOTAL:	16,631 SF * 6 = 99,786 SF

APARTMENTS

24–PLEX (38' BUILDING HEIGHT)

FIRST FLOOR:	8,288 SF
SECOND FLOOR:	8,079 SF
THIRD FLOOR:	7,710 SF
GROSS TOTAL:	24,077 SF * 7 = 168,539 SF

36–PLEX (38' BUILDING HEIGHT)

FIRST FLOOR:	12,687 SF
SECOND FLOOR:	12,478 SF
THIRD FLOOR:	11,923 SF
GROSS TOTAL:	37,088 SF * 2 = 74,176 SF

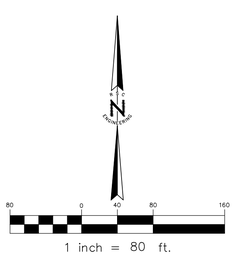
CLUBHOUSES

TOWNHOME (32' BUILDING HEIGHT)

FIRST FLOOR:	7,194 SF
COVERED PATIO:	1,535 SF
GROSS TOTAL:	8,729 SF

APARTMENT (32' BUILDING HEIGHT)

FIRST FLOOR:	5,486 SF
SECOND FLOOR:	1,962 SF
COVERED PATIO:	894 SF
DECK:	827 SF
GROSS TOTAL:	9,169 SF



GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
SACRAMENTO, CA 95833

REV NO.	DATE	DESCRIPTION	ENG INT.	BY	DATE CITY APPROVED
1					
2					
3					
4					
5					

RSC ENGINEERING
1420 Rocky Ridge Drive, Suite 150
Roseville, CA 95661
Ph: 916.788.2884 Fax: 916.788.4408

PROJECT NO: 247–003
DRAWN BY: RSC Eng
CHECKED BY: RSC Eng
DESIGNED BY: RSC Eng

PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER

**NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA**

SHEET TITLE
BUILDING SUMMARY

SHEET NO.
NT1
OF

DATE: JUNE 8, 2022

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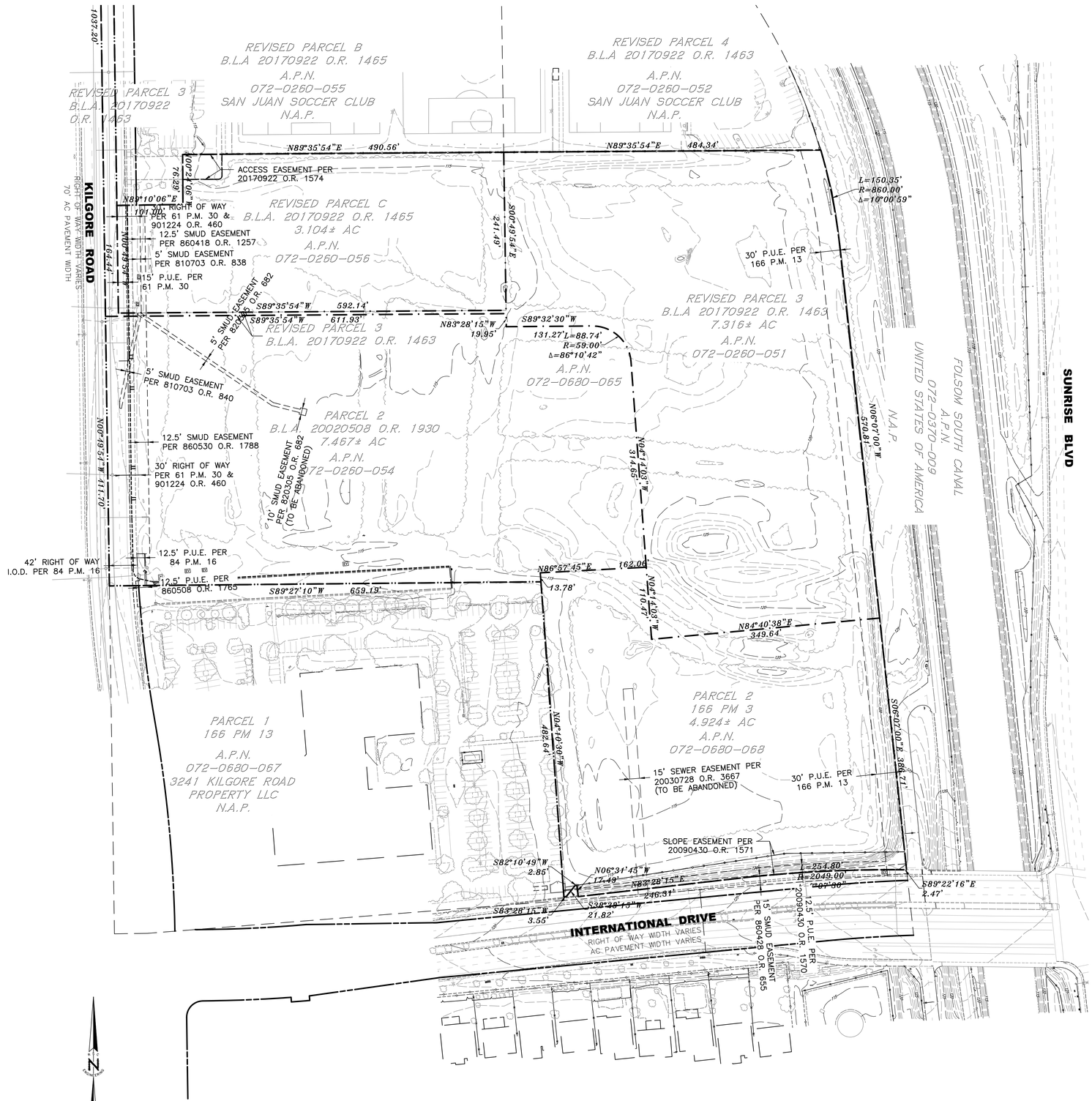

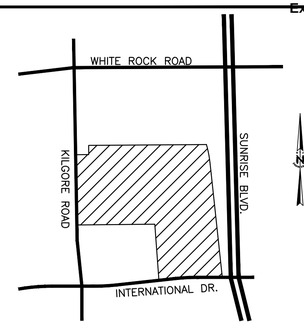

VICINITY MAP

PROJECT DATA

APN

072-0260-051, 054, AND 056
072-0680-065 AND 068

EXISTING ZONING

OPMU (OFFICE PROFESSIONAL MIXED USE)

EXISTING GENERAL PLAN DESIGNATION

OMU (OFFICE MIXED USE)

EXISTING PARCEL SIZE

072-0260-051:	7.316± AC
072-0260-054:	7.467± AC
072-0260-056:	3.104± AC
072-0680-068:	4.924± AC
TOTAL:	22.811± AC

FEMA DESIGNATION

ZONE X 06067C0209H
DATED 8/16/2012

LEGEND

EXISTING BOUNDARY LINE

EXISTING RIGHT OF WAY

EXISTING EASEMENT

GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
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2					
3					
4					
5					

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PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER

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RANCHO CORDOVA, CA**

SHEET TITLE
EXISTING CONDITIONS

SHEET NO.
EX
OF

DATE: JUNE 8, 2022

Xrefs: \247003_XPREPA.dwg
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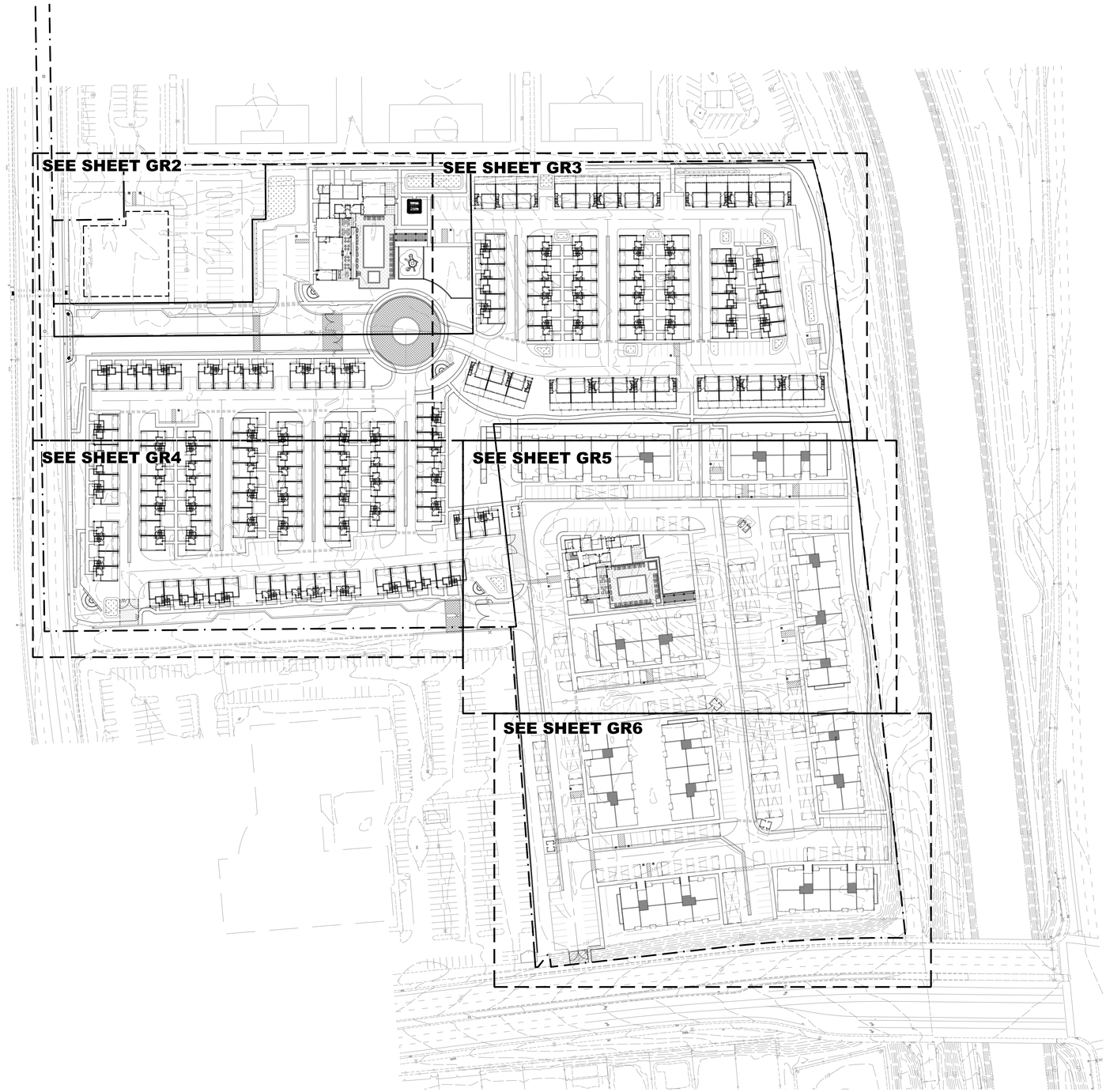

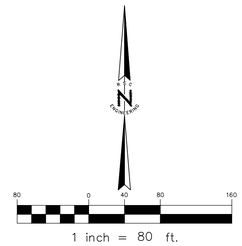

LEGEND

159.40 AC	PROPOSED TOP OF AC ELEVATION
159.40 FL	PROPOSED FLOW LINE ELEVATION
159.40 FG	PROPOSED FINISH GRADE
159.40 AC MATCH	MATCH EXISTING ELEVATION
159.40 AC	EXISTING TOP OF AC ELEVATION
159.40 FL	EXISTING FLOW LINE ELEVATION
159.40 EG	EXISTING FINISH GRADE ELEVATION
GB GB	PROPOSED GRADE BREAK
164	EXISTING MINOR CONTOUR
165	EXISTING MAJOR CONTOUR
	PROPOSED 1.5" GRIND AND OVERLAY TO LANE LINE
	PROPOSED 2' SAWCUT FROM LIP OF GUTTER

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PROJECT NO: 247-003
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DESIGNED BY: RSC Eng

PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER

NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
PRELIMINARY OVERALL GRADING PLAN

SHEET NO.
GR1
OF

DATE: JUNE 8, 2022

EXISTING TYPE A DRIVEWAY TO REMAIN

INSTALL TYPE A DRIVEWAY PER SAC COUNTY DETAIL 4-36

START CURB AND GUTTER AND SIDEWALK REMOVAL AND REPLACEMENT IN KIND

FUTURE BUILDING 4,999± SF AND OUTDOOR AREA 8,800± SF

FFE = 115.500

FFE = 116.50

FFE = 116.50

FFE = 117.00

FFE = 118.00

MATCHLINE SEE SHEET GR3

MATCHLINE SEE SHEET GR4

1 inch = 20 ft.

GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE, SUITE 101
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PROJECT NO:	247-003
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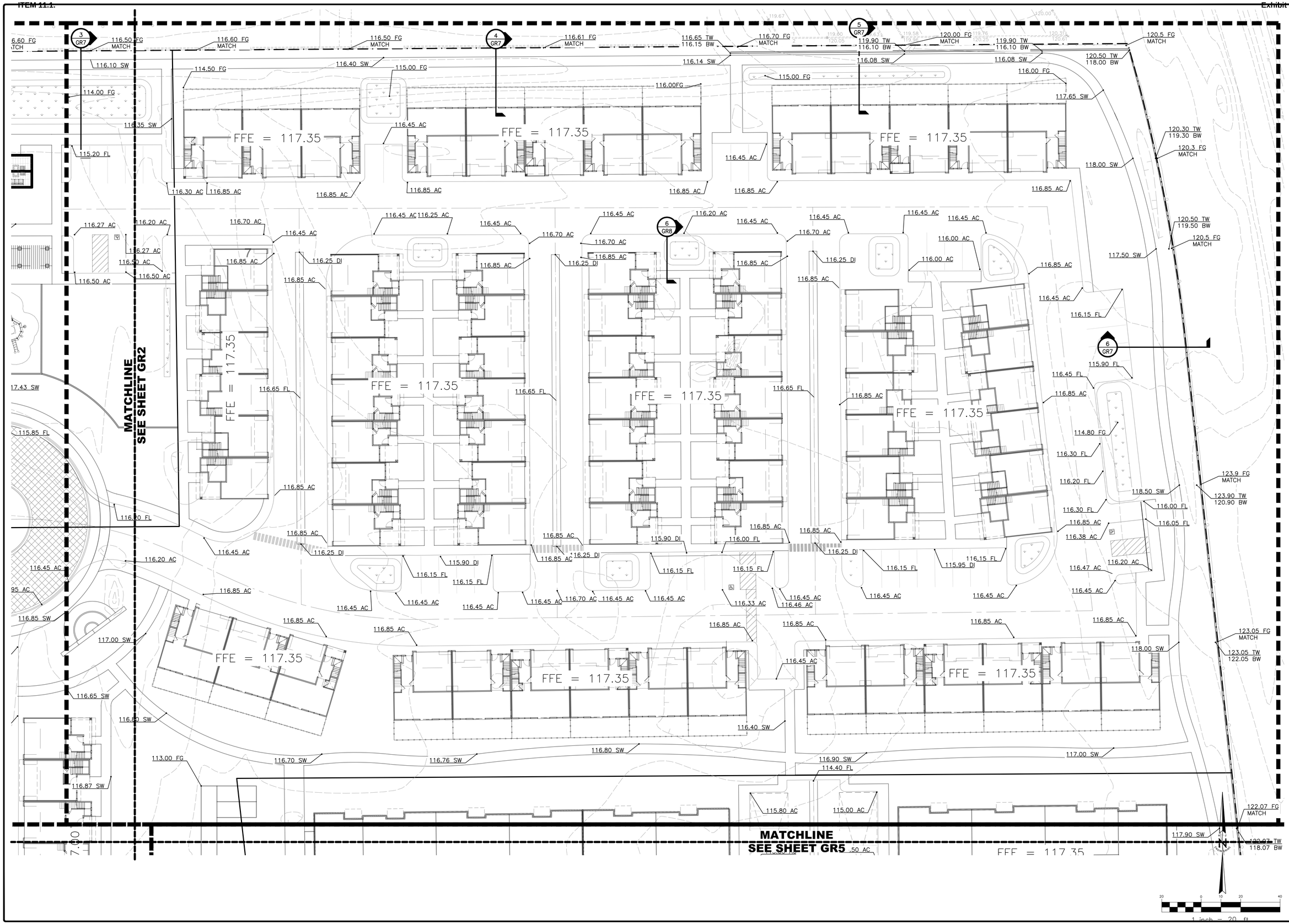
PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER

NEC KILGORE ROAD & INTERNATIONAL DR. RANCHO CORDOVA, CA

SHEET TITLE
PRELIMINARY GRADING PLAN

SHEET NO.
GR2
OF

DATE: JUNE 8, 2022



GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
SACRAMENTO, CA 95833

REV NO.	DATE	DESCRIPTION	ENG INT.	BY	DATE	CITY APPROVED

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PROJECT NO:	247-003
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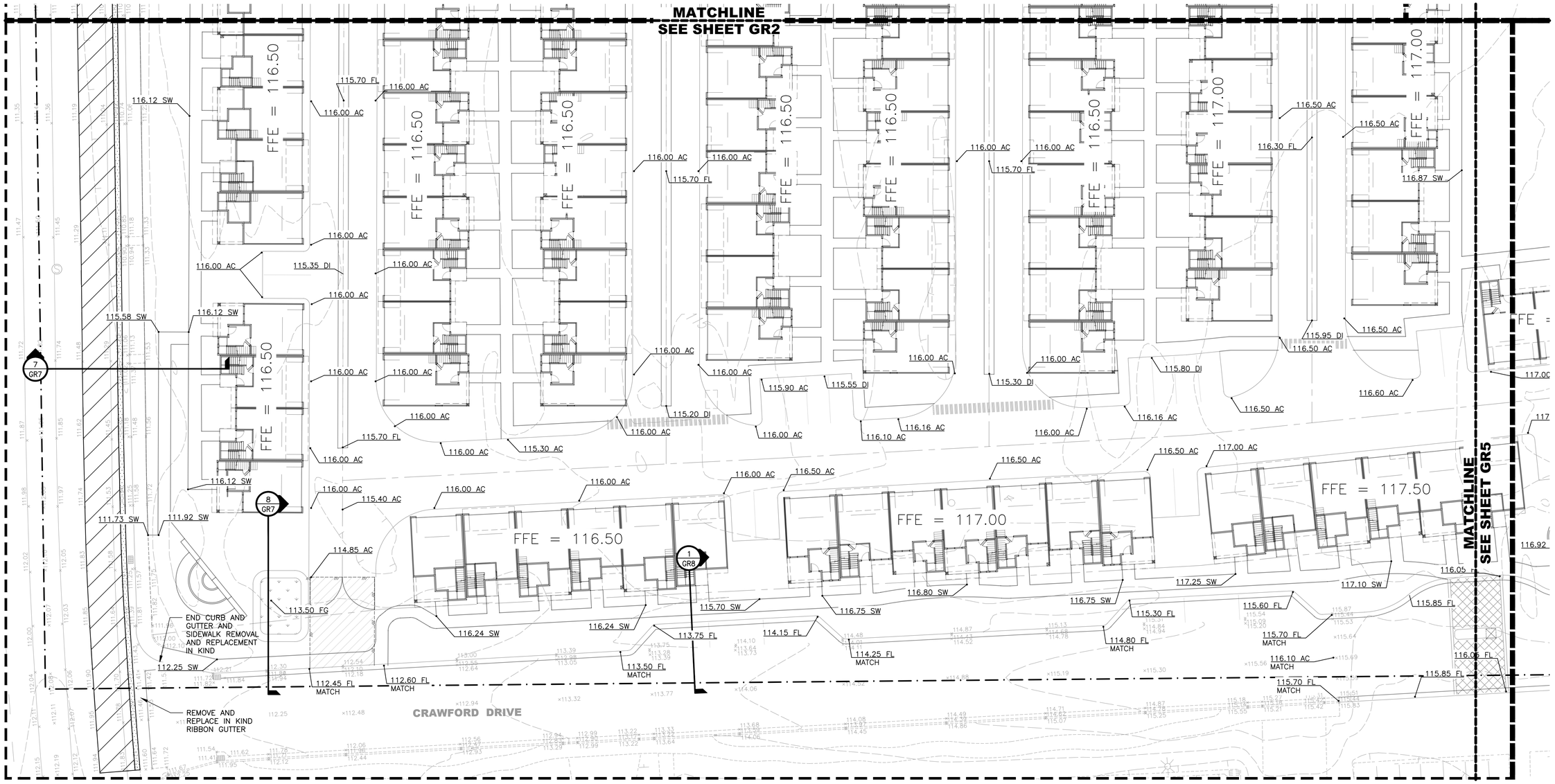
PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER

NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
PRELIMINARY GRADING PLAN

SHEET NO.
GR3
OF

DATE: JUNE 8, 2022



GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
SACRAMENTO, CA 95833

REV NO.	DATE	DESCRIPTION	ENG INT.	BY	DATE
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PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER

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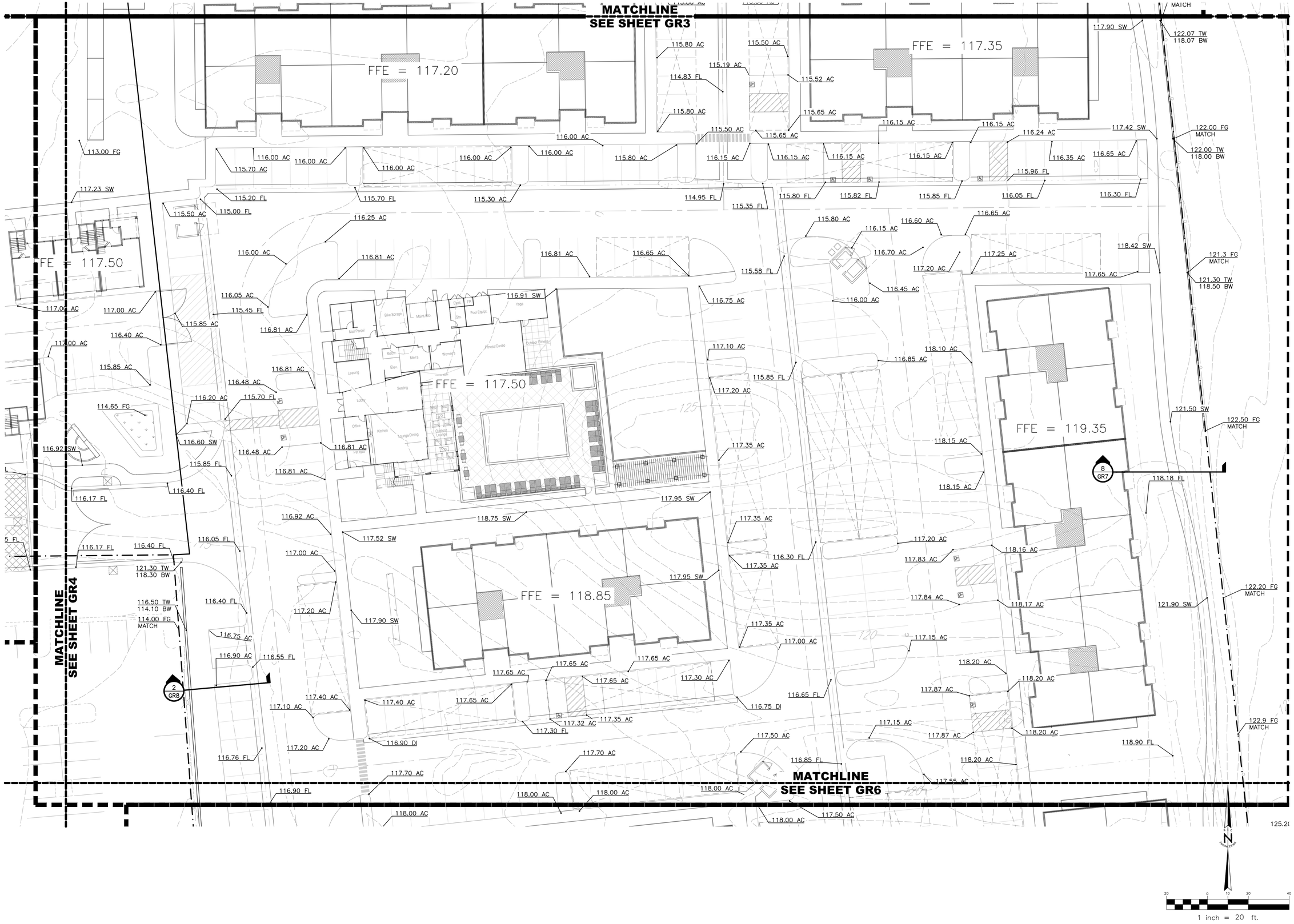
RANCHO CORDOVA, CA

SHEET TITLE
PRELIMINARY GRADING PLAN

SHEET NO.
GR4
OF

DATE: JUNE 8, 2022



GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
SACRAMENTO, CA 95833

REV NO.	DATE	DESCRIPTION	ENG INT.	BY	DATE	CITY APPROVED

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PROJECT NO:	247-003
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PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER

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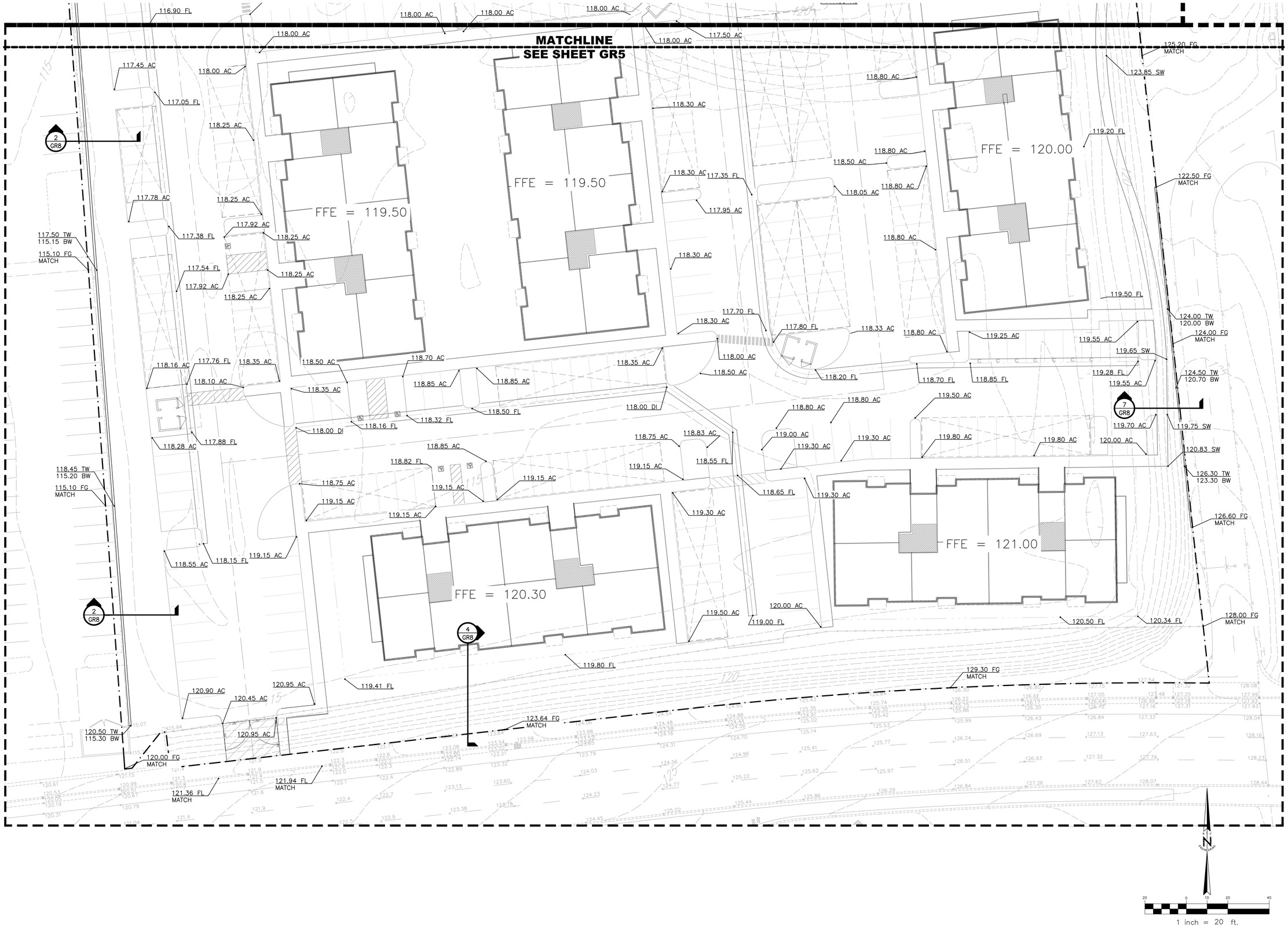
RANCHO CORDOVA, CA

SHEET TITLE
PRELIMINARY GRADING PLAN

SHEET NO.
GR5
OF

DATE: JUNE 8, 2022



GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
SACRAMENTO, CA 95833

REV NO.	DATE	DESCRIPTION	ENG INT.	BY	DATE CITY APPROVED

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Ph: 916.788.2884 Fax: 916.788.4408

PROJECT NO:	247-003
DRAWN BY:	RSC Eng
CHECKED BY:	RSC Eng
DESIGNED BY:	RSC Eng

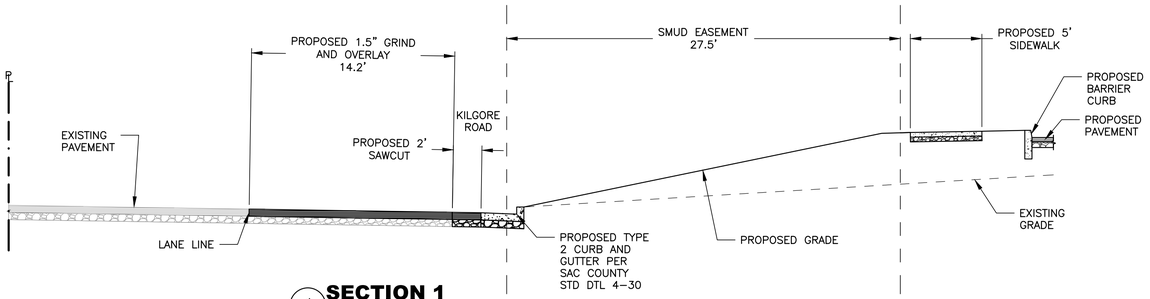
PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER

NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
PRELIMINARY GRADING PLAN

SHEET NO.
GR6
OF

DATE: JUNE 8, 2022



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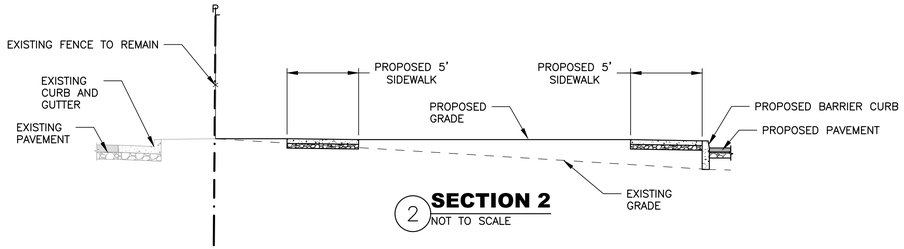

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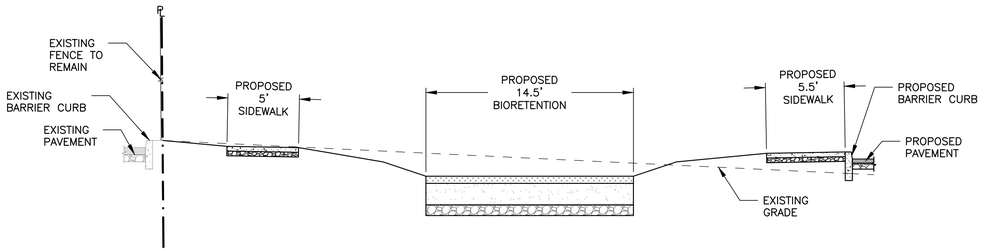

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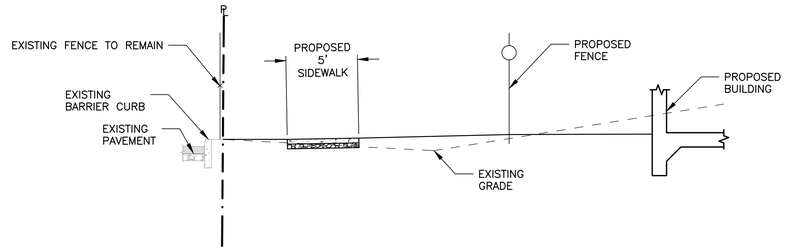

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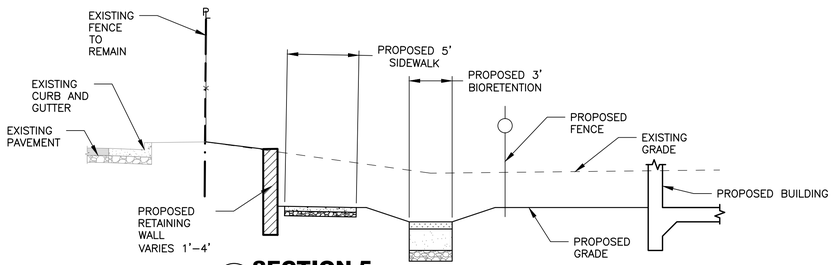

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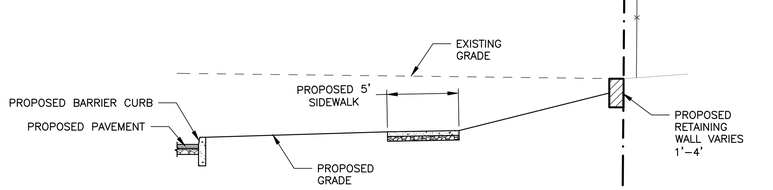

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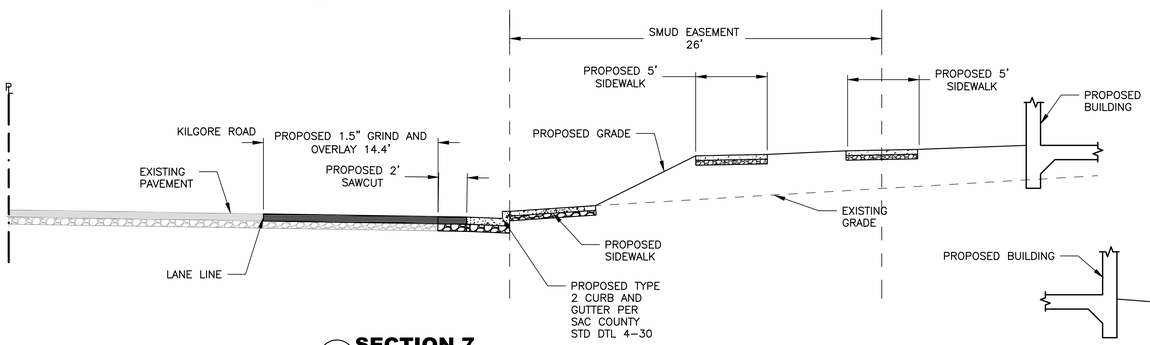

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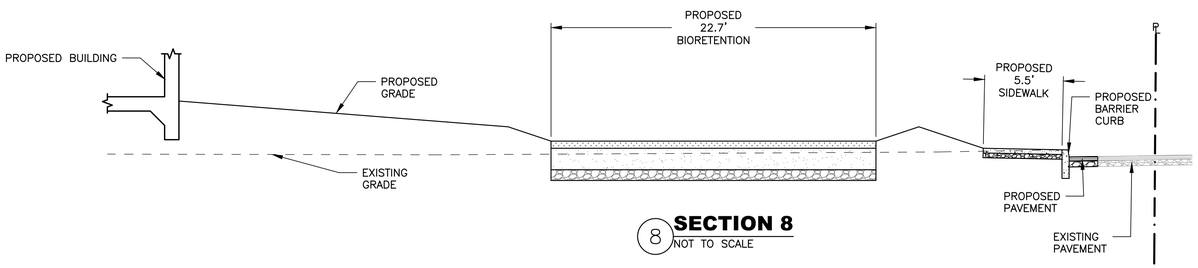

8 **SECTION 8**
NOT TO SCALE

GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
SACRAMENTO, CA 95833

REV NO.	DATE	DESCRIPTION	ENG INT.	BY	DATE CITY APPROVED

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1420 Rocky Ridge Drive, Suite 150
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Ph: 916.788.2884 Fax: 916.788.4408

PROJECT NO:	247-003
DRAWN BY:	RSC Eng
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DESIGNED BY:	RSC Eng

PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER

**NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA**

SHEET TITLE
GRADING SECTIONS

SHEET NO.
GR7
OF

DATE: JUNE 8, 2022

DRAWING: P:\247-003\Planning\Conceptual\247003_03 SEC.dwg
USER: RSCEng
LAST SAVED: Jun 07, 22 - 14:47
PLOT DATE: Jun 07, 2022 - 2:51:13 PM
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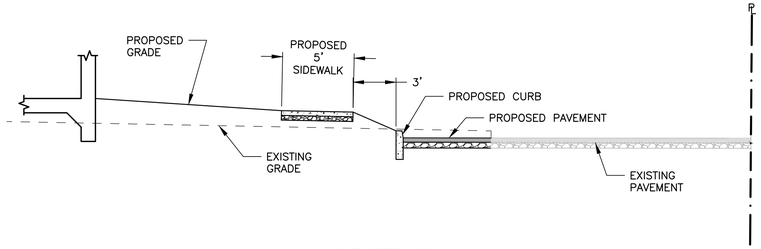

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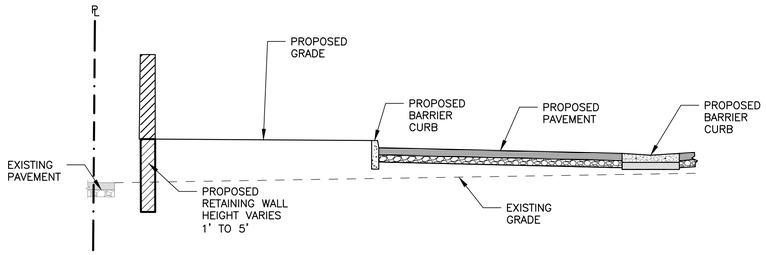

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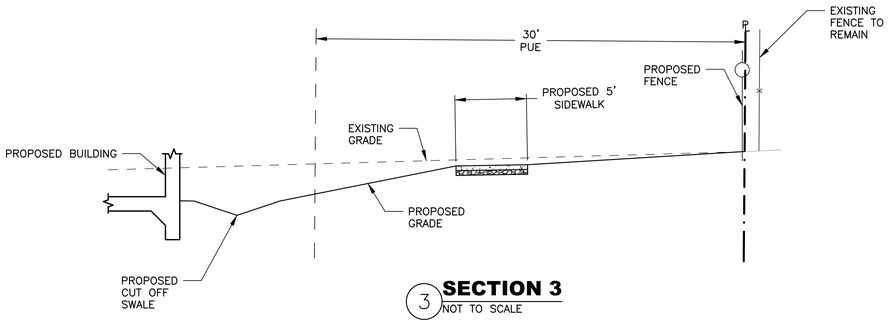

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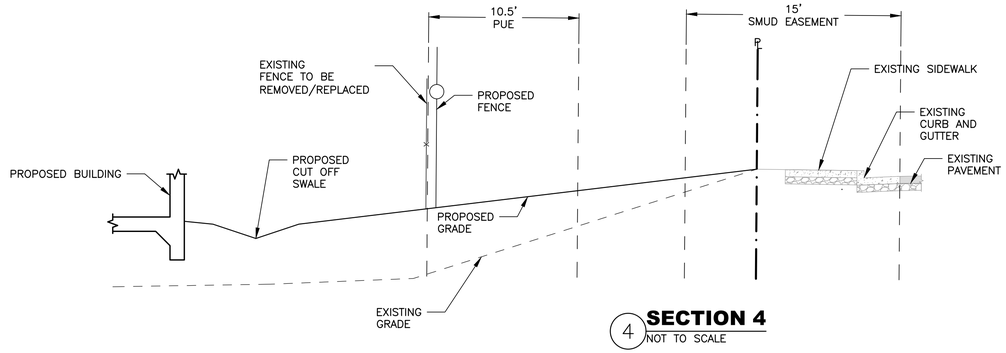
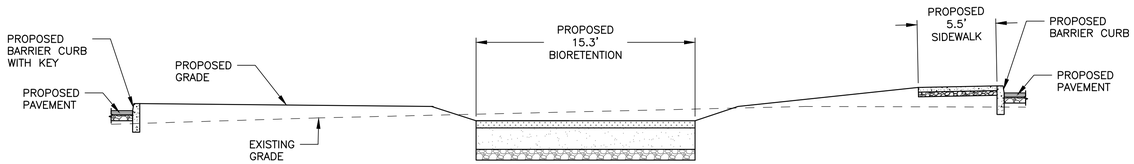


4 **SECTION 4**
NOT TO SCALE



5 **SECTION 5**
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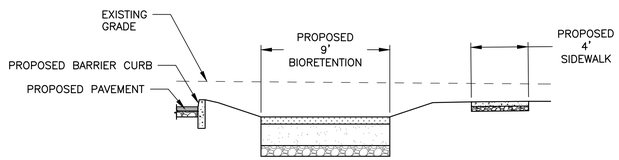
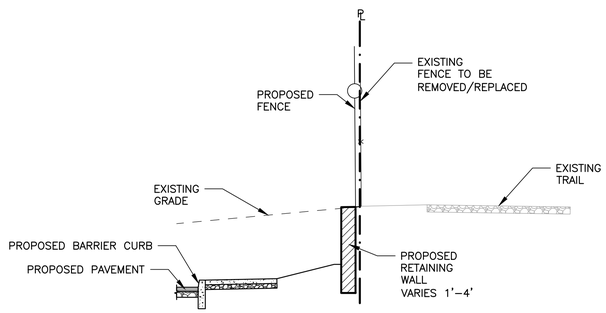


6 **SECTION 6**
NOT TO SCALE



7 **SECTION 7**
NOT TO SCALE

GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
SACRAMENTO, CA 95833

REV NO.	DATE	DESCRIPTION	ENG INT.	BY	DATE
				CITY APPROVED	

RSC ENGINEERING
1420 Rocky Ridge Drive, Suite 150
Roseville, CA 95661
Ph: 916.788.2884 Fax: 916.788.4408

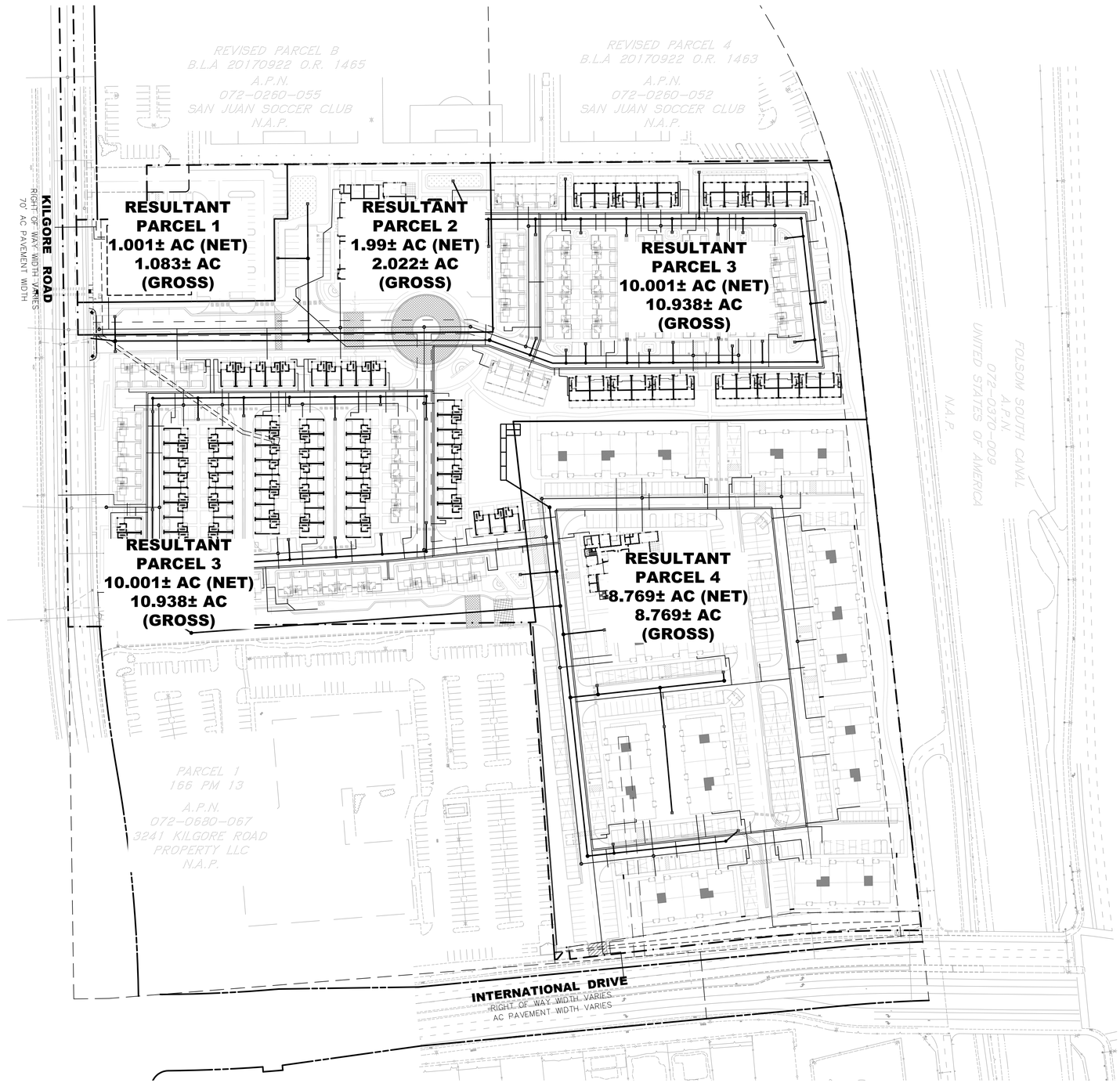
PROJECT NO: 247-003
DRAWN BY: RSC Eng
CHECKED BY: RSC Eng
DESIGNED BY: RSC Eng

PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER
NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
GRADING SECTIONS

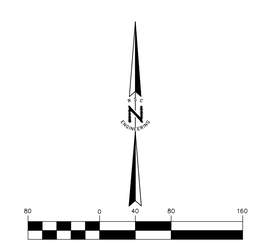
SHEET NO.
GR8
OF

DATE: JUNE 8, 2022



LEGEND:

- 8"S.S. – PROPOSED SANITARY SEWER
- 8"S.S. – EXISTING SANITARY SEWER
- 12"S.D. – PROPOSED STORM DRAIN
- 12"S.D. – EXISTING STORM DRAIN
- 4" DW – PROPOSED DOMESTIC WATER LINE
- 12" W – EXISTING WATER LINE
- 12" FW – PROPOSED FIRE SERVICE
- PROPOSED WATER METER
- PROPOSED FIRE DEPARTMENT CONNECTION ASSEMBLY
- PROPOSED FIRE HYDRANT
- PROPOSED BIORETENTION STORM WATER PLANTER
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN INLET
- EXISTING PROPERTY LINE
- EXISTING P.U.E.



GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
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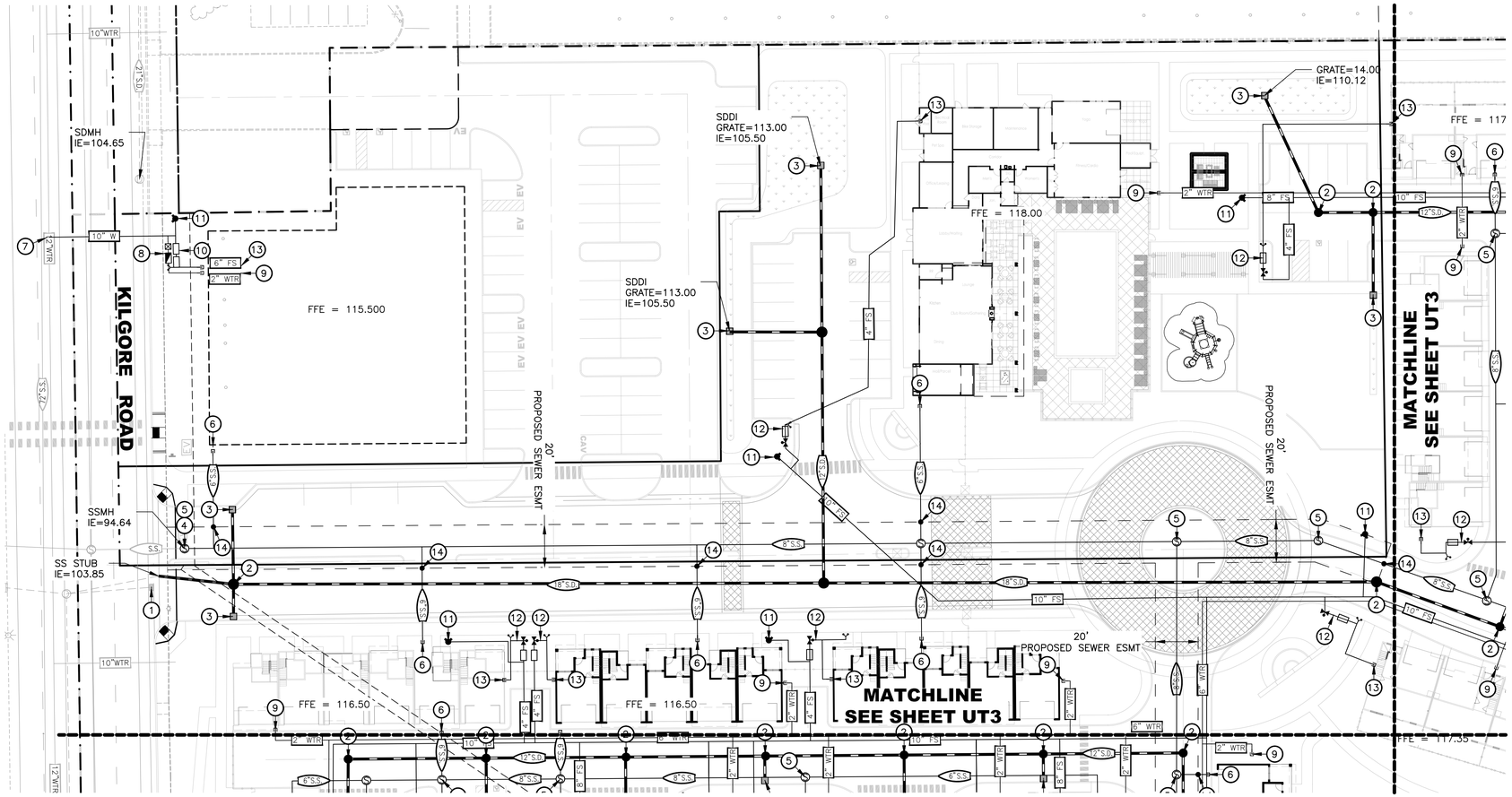
PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER

NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
PRELIMINARY OVERALL UTILITY PLAN

SHEET NO.
UT1
OF

DATE: JUNE 8, 2022



KEYNOTES

1. LOCATE AND CONNECT TO EXISTING STORM DRAIN
2. PROPOSED STORM DRAIN MANHOLE
3. PROPOSED STORM DRAIN INLET
4. LOCATE AND CONNECT TO EXISTING SANITARY SEWER STUB
5. PROPOSED SANITARY SEWER MANHOLE
6. PROPOSED 6" SANITARY SEWER STUB TO BUILDING
7. LOCATE AND TAP EXISTING WATER MAIN
8. INSTALL 4" DOMESTIC WATER METER AND DOUBLE CHECK DETECTOR ASSEMBLY
9. PROPOSED 2" DOMESTIC WATER STUB TO BUILDING
10. INSTALL 10" FIRE SERVICE DOUBLE CHECK DETECTOR ASSEMBLY
11. PROPOSED FIRE HYDRANT
12. PROPOSED POST INDICATOR VALVE, BACKFLOW PREVENTOR, AND FIRE DEPARTMENT CONNECTION ASSEMBLY
13. PROPOSED 4"/6" SPRINKLER SERVICE STUB TO BUILDING
14. PROPOSED CLEANOUT TO GRADE AT SEWER EASEMENT
15. PROPOSED CONTECH STORMWATER QUALITY VAULT

LEGEND:

- 8"S.S. – PROPOSED SANITARY SEWER
- 8"S.S. – EXISTING SANITARY SEWER
- 12"S.D. – PROPOSED STORM DRAIN
- 12"S.D. – EXISTING STORM DRAIN
- 4" DW – PROPOSED DOMESTIC WATER LINE
- 12" W – EXISTING WATER LINE
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- PROPOSED WATER METER
- PROPOSED FIRE DEPARTMENT CONNECTION ASSEMBLY
- PROPOSED FIRE HYDRANT
- PROPOSED BIORETENTION STORM WATER PLANTER
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN INLET
- EXISTING PROPERTY LINE
- EXISTING P.U.E.

N

30 0 15 30 60

1 inch = 30 ft.

GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
SACRAMENTO, CA 95833

REV NO.	DATE	DESCRIPTION	ENG INT.	BY	DATE	CITY APPROVED
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Ph: 916.788.2884 Fax: 916.788.4408

PROJECT NO: 247-003
DRAWN BY: RSC Eng
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DESIGNED BY: RSC Eng

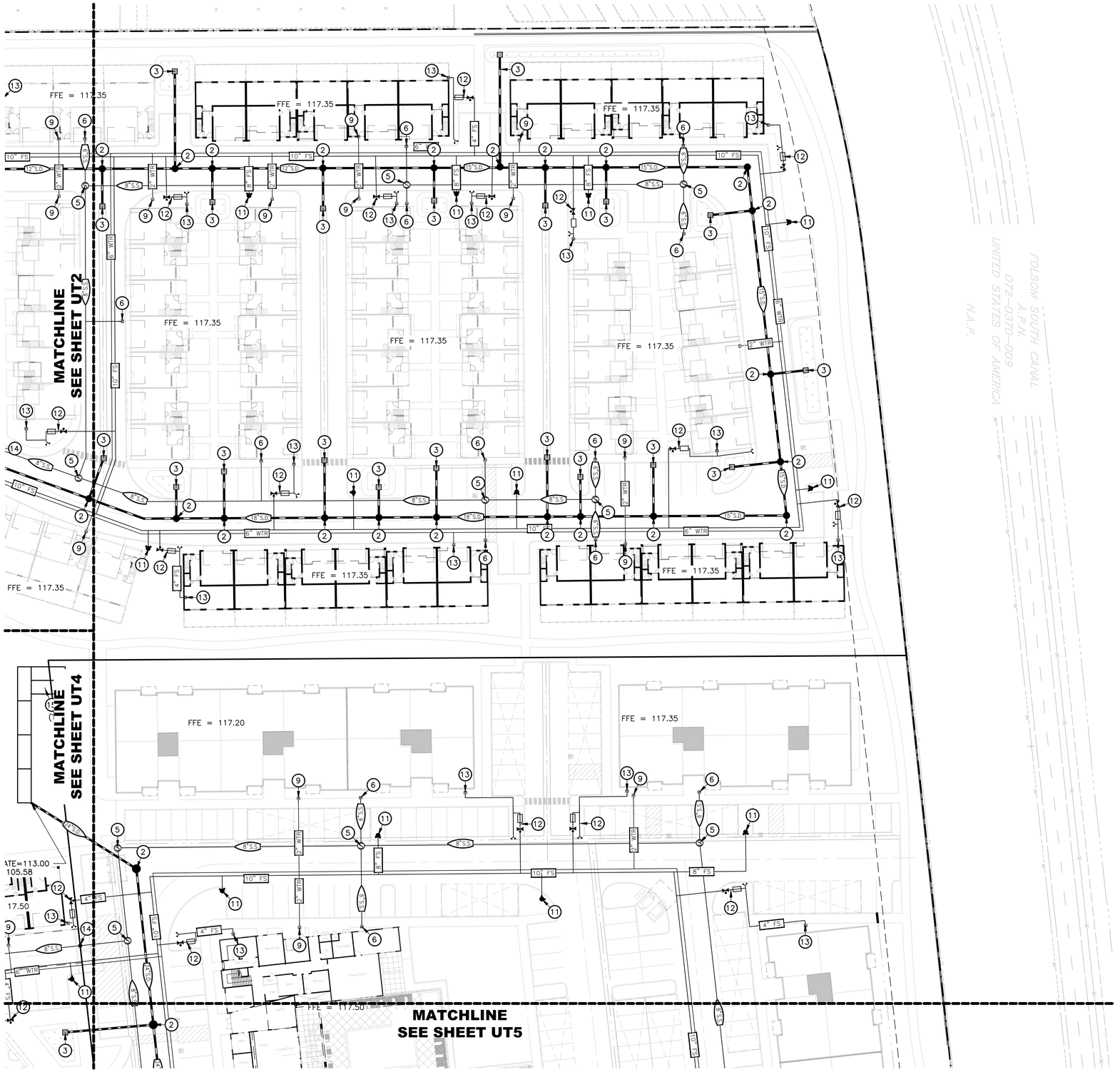
PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER

NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
PRELIMINARY UTILITY PLAN

SHEET NO.
UT2
OF

DATE: JUNE 8, 2022



LEGEND:

- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- PROPOSED DOMESTIC WATER LINE
- EXISTING WATER LINE
- PROPOSED FIRE SERVICE
- PROPOSED WATER METER
- PROPOSED FIRE DEPARTMENT CONNECTION ASSEMBLY
- PROPOSED FIRE HYDRANT
- PROPOSED BIORETENTION STORM WATER PLANTER
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN INLET
- EXISTING PROPERTY LINE
- EXISTING P.U.E.

KEYNOTES

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6. PROPOSED 6" SANITARY SEWER STUB TO BUILDING
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11. PROPOSED FIRE HYDRANT
12. PROPOSED POST INDICATOR VALVE, BACKFLOW PREVENTOR, AND FIRE DEPARTMENT CONNECTION ASSEMBLY
13. PROPOSED 4"/6" SPRINKLER SERVICE STUB TO BUILDING
14. PROPOSED CLEANOUT TO GRADE AT SEWER EASEMENT
15. PROPOSED CONTECH STORMWATER QUALITY VAULT

1 inch = 30 ft.

GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
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REV NO.	DATE	DESCRIPTION	ENG INT.	BY	DATE	CITY APPROVED

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1420 Rocky Ridge Drive, Suite 150
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Ph: 916.788.2884 Fax: 916.788.4408

PROJECT NO:	247-003
DRAWN BY:	RSC Eng
CHECKED BY:	RSC Eng
DESIGNED BY:	RSC Eng

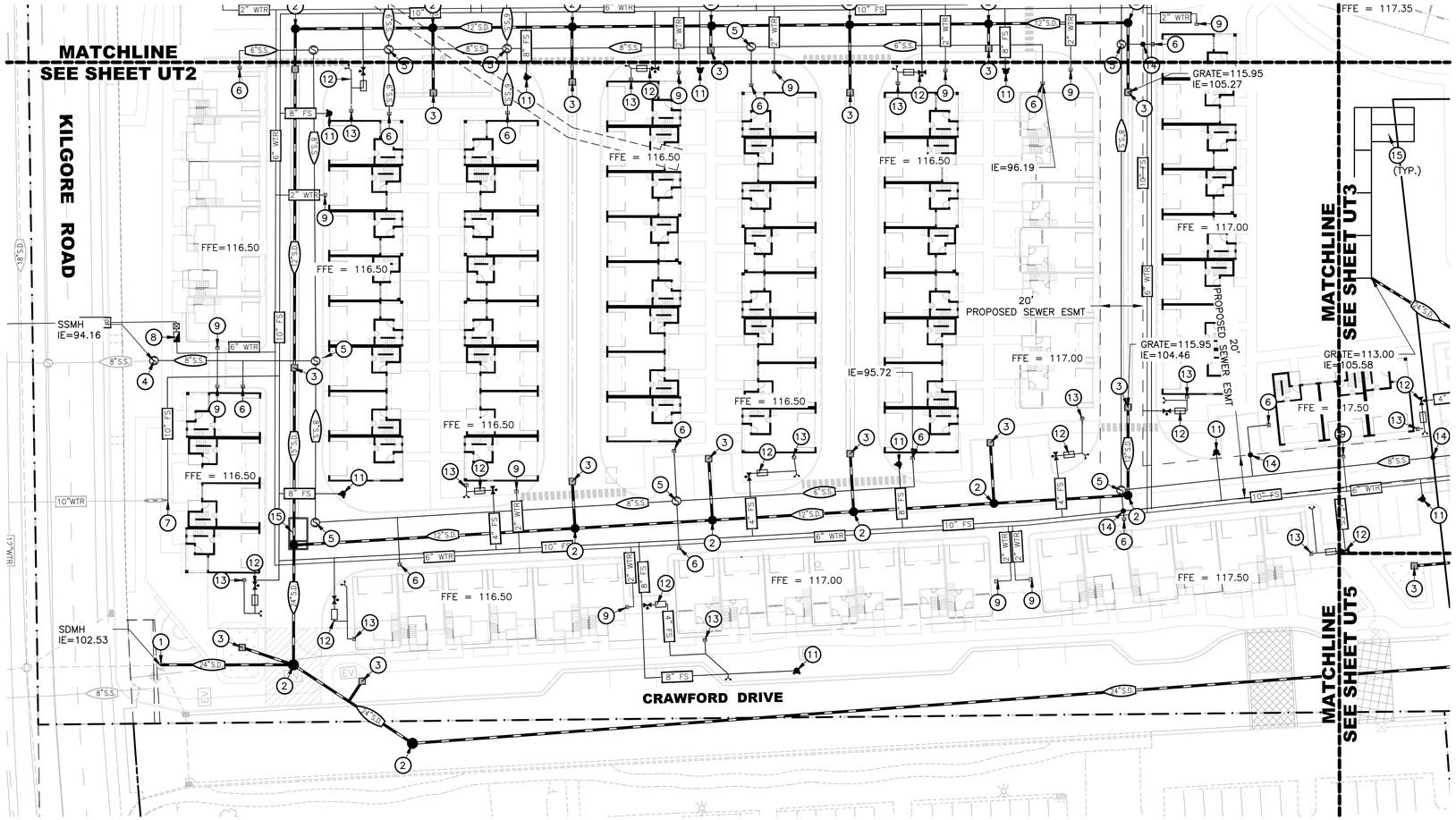
PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER

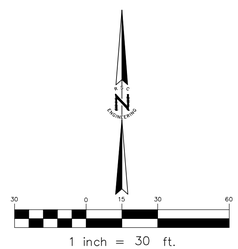
NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
PRELIMINARY UTILITY PLAN

SHEET NO.
UT3
OF

DATE: JUNE 8, 2022





KEYNOTES

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2. PROPOSED STORM DRAIN MANHOLE
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LEGEND:

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- PROPOSED STORM DRAIN INLET
- EXISTING PROPERTY LINE
- EXISTING P.U.E.

GGC HIGHWAY 50 LLC
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RSC ENGINEERING
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Roseville, CA 95661
Ph: 916.788.2884 Fax: 916.788.4408

PROJECT NO:	247-003
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CHECKED BY:	RSC Eng
DESIGNED BY:	RSC Eng

PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER

**NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA**

SHEET TITLE
PRELIMINARY UTILITY PLAN

SHEET NO.
UT4
OF

DATE: JUNE 8, 2022

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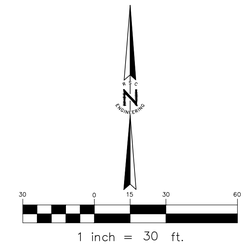

KEYNOTES

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- 8"S.S. – EXISTING SANITARY SEWER
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- EXISTING P.U.E.

GGC HIGHWAY 50 LLC
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				CITY APPROVED	

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PROJECT NO:	247-003
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DESIGNED BY:	RSC Eng

PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER
NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
PRELIMINARY UTILITY PLAN

SHEET NO.
UT5
OF

DATE: JUNE 8, 2022

SITE LEGEND

- PEDESTRIAN PATH OF TRAVEL
- BIKE TRAILS
- CONNECTION TO BIKE TRAIL

Scale: 1" = 200' (on 24x36 sheet)

North

A0.04A

ADJACENCY CIRCULATION PLAN

THE RESIDENCES AT CAPITAL CENTER

Rancho Cordova, CA

GRUPE

COLE PARTNERS DEVELOPMENT COMPANY
REAL ESTATE INVESTMENT, DEVELOPMENT & MANAGEMENT

BSB DESIGN
BSBDESIGN.COM

The drawings presented are illustrative of character and design intent only, and are subject to change based upon final design considerations (i.e. applicable codes, structural, and MEP design requirements, unit plan / floor plan changes, etc.) © 2022 BSB Design, Inc.

June 8, 2022 | MR200458.00

McGraw-Edison

DESCRIPTION

The Galleonaire LED luminaire features advanced thermally conductive polymer heatsinks and open frame endcaps for a sleek aesthetic with significant weight reduction. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated and UL/cUL Listed for wet locations.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction
Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Open frame die-cast aluminum end caps provide structural support for the housing and heatsinks. Thermally conductive polymer heatsinks offer significant weight reduction while fully maintaining thermal management of the Light Squares. 3G vibration tested and rated. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

Optics
Patented, high-efficiency injection-molded AccuLED Optics technology. Optics are precisely designed to shape the distribution, maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT 70 CRI. Optional 2700K, 3000K, 5000K and 6000K CCT

Electrical
LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480Y/Wye systems only. Standard with 0-10V dimming. Shipped standard with Cooper Lighting Solutions proprietary circuit module designed to withstand 10kV of transient line surge. The Galleonaire LED luminaire is suitable for operation in -40°C to 40°C ambient environments. Light Squares are IP66 rated. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 600mA and 800mA drive currents (nominal).

Mounting
STANDARD ARM MOUNT: Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during mounting. When mounting two or more luminaires at 90° and 120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table. Round pole adapter included. For wall mounting, specify wall mount bracket option. QUICK MOUNT ARM: Adapter is bolted directly to the pole. Quick mount arm slide into place on the adapter and is secured via two screws, facilitating quick and easy installation. The versatile, patent pending, quick mount arm accomodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the quick mount arm enables wiring of the fixture without having to access the driver compartment. A knock-out enables round pole mounting.

Finish
Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is dark gray, non-paintable. Standard housing colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.

Warranty
Five-year warranty.

GLNA
GALLEONAIRE

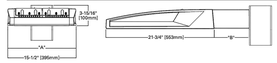
1-10 Light Squares
Solid State LED

AREA/SITE LUMINAIRE

LumenSafe Technology
Powered by Intelligence

WaveLinx

DIMENSIONS



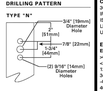
DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length †	Weight with Arm (lbs.)	EPA with Arm ‡ (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	28 (12.7 kgs)	0.72
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	38 (16.3 kgs)	0.77
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	43 (19.5 kgs)	0.95
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	48 (22.2 kgs)	1.13

NOTES: † Optional arm length to be used when mounting two fixtures at 90° on a single pole. **‡** EPA calculated with optional arm length.

DRILLING PATTERN

TYPE "A"



CERTIFICATION DATA
3G Vibration Rated
IP66 Rated
ISO 9001
UKCA / UKNI Compliant
UL/cUL Wet Location Listed

ENERGY DATA
Electronic Driver
≥0.9 Power Factor
<20% Total Harmonic Distortion
120V-277V 50/60Hz
347V, 480V 60Hz
-40°C Min. Temperature
40°C Max. Temperature

TD500064EN
December 17, 2019 8:41 AM

COOPER Lighting Solutions

ORDERING INFORMATION

Sample Number: GLNA-AF-04-LED-E1-73-GM-GM

Product Family *	Light Engine	Number of Light Squares *	Lamp Type	Voltage	Distribution	Color	Mounting
GLNA=Galleonaire	**AF**=1A Drive Current	**01**=1 **02**=2 **03**=3 **04**=4 **05**=5 **06**=6 **07**=7 **08**=8 **09**=9 **10**=10 *	**LED**=Solid State Light Emitting Diodes	**E1**=120-277V **E2**=347V **480**=480V * †	**T2**=Type II **T3**=Type III Roadway **T3I**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **SM**=Type V Square **SMQ**=Type V Square Medium **SWQ**=Type V Square Wide **SL2**=Type II w/Split Control **SL3**=Type III w/Split Control **SL4**=Type IV w/Split Control **SLL**=45° Split Light Eliminator Left **SLR**=90° Split Light Eliminator Right **RW**=Rectangular Wide Type I **AF**=Automotive Frontline	**AP**=Grey **DB**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White	**[Blank]**=Arm for Round or Square Pole **EA**=Extended Arm * **MA**=Mast Arm Adapter ‡‡ **WM**=Wall Mount **QM**=Quick Mount Arm ([Extended Length] ‡) **QMEA**=Quick Mount Arm ([Extended Length] ‡)

Options (Add as Suffix)

7027=70 CRI 2700K ‡‡
7030=70 CRI 3000K ‡‡
8030=80 CRI 3000K ‡‡
8040=80 CRI 4000K ‡‡
7060=70 CRI 6000K ‡‡
695=Drive Current Factory Set to Nominal 695mA ‡‡
800=Drive Current Factory Set to Nominal 800mA ‡‡
480=Drive Current Factory Set to Nominal 480mA ‡‡
F=Double Fuse (120, 277 or 347V. Must Specify Voltage)
2F=Double Fuse (208, 240 or 480V. Must Specify Voltage)
2L=Two Circuits ‡‡ §
DIM=External 0-10V Dimming Leads ‡‡ §
P=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Voltage) ‡‡
PE=Photocontrol, Event Programmable ‡‡
R=NEMA Twistlock Photocontrol Receptacle ‡‡
AHD140=After Hours Dim, 5 Hours ‡‡
AHD245=After Hours Dim, 6 Hours ‡‡
AHD350=After Hours Dim, 7 Hours ‡‡
AHD455=After Hours Dim, 8 Hours ‡‡
MS/DIM-LSS=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height ‡‡ §
MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height ‡‡ §
MS/DIM-L40W=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height (Wide Range) ‡‡ §
MS/X-L20=Bi-Level Motion Sensor, Maximum 8' Mounting Height ‡‡ ¶ §
MS/X-L40=Bi-Level Motion Sensor, 21' - 40' Mounting Height ‡‡ ¶ §
MS/X-L40W=Bi-Level Motion Sensor, 21' - 40' Mounting Height (Wide Range) ‡‡ ¶ §
MS-L20=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height ‡‡ §
MS-L20i=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height ‡‡ §
MS-L40W=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height (Wide Range) ‡‡ §
LMR=LumaWatt Pro Wireless Sensor, Standard Lens for 8' - 15' Mounting Height ‡‡
LMR-LN=LumaWatt Pro Wireless Sensor, Narrow Lens for 18' - 40' Mounting Height ‡‡
LN=Optics Rotated 90° Left
RN=Optics Rotated 90° Right
DDL=Diagnostic Door Hardware
LCA=Light Gray Paint Color Painted to Match Housing ‡‡
HSS=Factory Installed House Side Shield ‡‡
CE=CE Marking ‡‡
ZW-7PIN=Factory Installed 4-Pin Twistlock Receptacle ‡‡ §§
ZW-WWPDXX=Wirevelinx Wireless Sensor, 7' - 15' Mounting Height ‡‡ §§ ‡‡
ZW-SWPDXX=Wirevelinx Wireless Sensor, 15' - 40' Mounting Height ‡‡ §§ ‡‡

Accessories (Order Separately)

OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V
OA/RA1027=NEMA Photocontrol - 480V
OA/RA1201=NEMA Photocontrol - 347V
OA/RA1208=Photocontrol Shorting Cap
OA/RA1914=120V Photocontrol
MA1052=240V Surge Module Replacement
MA1536-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon
MA1537-XX=180° Tenon Adapter for 2-3/8" O.D. Tenon
MA1187-XX=2@120° Tenon Adapter for 2-3/8" O.D. Tenon
MA1188-XX=4@90° Tenon Adapter for 2-3/8" O.D. Tenon
MA1189-XX=3@90° Tenon Adapter for 2-3/8" O.D. Tenon
MA1190-XX=3@90° Tenon Adapter for 3-1/2" O.D. Tenon
MA1538-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon
MA1539-XX=2@180° Tenon Adapter for 3-1/2" O.D. Tenon
MA1192-XX=3@120° Tenon Adapter for 3-1/2" O.D. Tenon
MA1193-XX=4@90° Tenon Adapter for 3-1/2" O.D. Tenon
MA1194-XX=3@90° Tenon Adapter for 3-1/2" O.D. Tenon
MA1540-XX=2@90° Tenon Adapter for 3-1/2" O.D. Tenon
GLEON-QM=Quick Mount Arm Kit ‡
GLEON-QMEA=Quick Mount Extended Arm Kit ‡
BCS-GLNA=Bird Control Spike Kit
HSS-GLNA=Replacement House Side Shield ‡‡ §§
FSIR-100=Wireless Configuration Tool for Occupancy Sensor ‡‡
WOLC-7P-10A=WireLinx Outdoor Control Module (7-pin) ‡‡ §§
SWPDX-XX=Wirevelinx Wireless Sensor, 7' - 15' Mounting Height ‡‡ §§ ‡‡ ‡‡
SWPDS-XX=Wirevelinx Wireless Sensor, 15' - 40' Mounting Height ‡‡ §§ ‡‡ ‡‡

NOTES:
The installer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP01001EN. **2** Reserved **3** Standard 4000K CCT and minimum 70 CRI. **4** Not compatible with MS/X-L20 or MS/-L20 sensors. **5** Not compatible with extended quick mount arm (QMEA). **6** Not compatible with standard quick mount arm (QM) or extended quick mount arm (QMEA). **7** Requires the use of an internal step down transformer when combined with sensor options. Not available with sensor at 120Vac. Not available in combination with the HA high ambient and sensor options at 1A. **8** Only for use with Light Squares. **9** Not for use with Light Squares. **10** Not available with 480V. **11** Not available with 347V or 480V. **12** Not available with 480V. **13** Not available with Three Phase Corner Grounded Delta systems). **14** May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table. **15** Factory Installed. **16** Maximum 8 light squares. **17** Maximum 6 light squares. **18** Extended lead times apply. Use dedicated EE files for 2700K, 3000K, 5000K and 6000K when performing layouts. These files are published on the Galleonaire luminaire product page. **19** Not available with 347V or 480V. **20** Not available with MS, MS/X or MS/DIM at 347V or 480V. **21** Not available with LumaWatt Pro wireless sensors. **22** Not available with other control options. **23** Low voltage control lead brought out 18" outside fixture. **24** Not available if any "MS" sensor is selected. Motion sensor has an integral photocell. **25** Requires the use of P photocontrol or the PER7 or R photocontrol receptacle with photocon-trol. **26** Not available with 347V or 480V. **27** Not available with Three Phase Corner Grounded Delta systems. **28** Not available with 347V or 480V. **29** Not available with Three Phase Corner Grounded Delta systems. **30** Not available with 347V or 480V. **31** Not available with 347V or 480V. **32** Not available with 347V or 480V. **33** The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay and cutoff. **34** The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay and cutoff. **35** Approximately 22' detection diameter at 8' mounting height. **36** Approximately 40' detection diameter at 20' mounting height. **37** Approximately 100' detection diameter at 40' mounting height. **38** Recommend one BCS kit per 6 light squares. **39** Replace X with number of Light Squares operating in low mode. **40** Replace X with number of Light Squares operating in high mode. **41** Not available with 347V or 480V. **42** Not available with Three Phase Corner Grounded Delta systems. See application information. **43** Not available with house side shield (HSS). **44** Only for use with SL3, SLL, SLR and WFL distributions. The Light Square trim plate is painted black when the HSS option is selected. **45** CE is not available with the LWR, WL, WB/X, WB/DIM, P, R or PER7 options. Available in 120-277V only. **46** One required for each Light Square. **47** Requires PER7. **48** Replace XX with sensor color (WH, SE, or BK).

LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

Product Family	Camera Type	Data Backhaul
L=LumenSafe Technology®	**D**=Dome Camera, Standard **H**=Dome Camera, Hi-Res **Z**=Dome Camera, Remote PTZ	**C**=Cellular, Customer Installed SIM Card **A**=Cellular, Factory Installed AT&T SIM Card **V**=Cellular, Factory Installed Verizon SIM Card **S**=Cellular, Factory Installed Sprint SIM Card **R**=Cellular, Factory Installed Rogers SIM Card **W**=Wi-Fi Networking w/ Omni-Directional Antenna **E**=Ethernet Networking

*Consult LumenSafe system pages for additional details and compatibility. Not available with 9-10 light square housing. Not available with 347V, 480V or high ambient options.

COOPER Lighting Solutions

Cooper Lighting Solutions
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.cooperlighting.com

Specifications and dimensions subject to change without notice.

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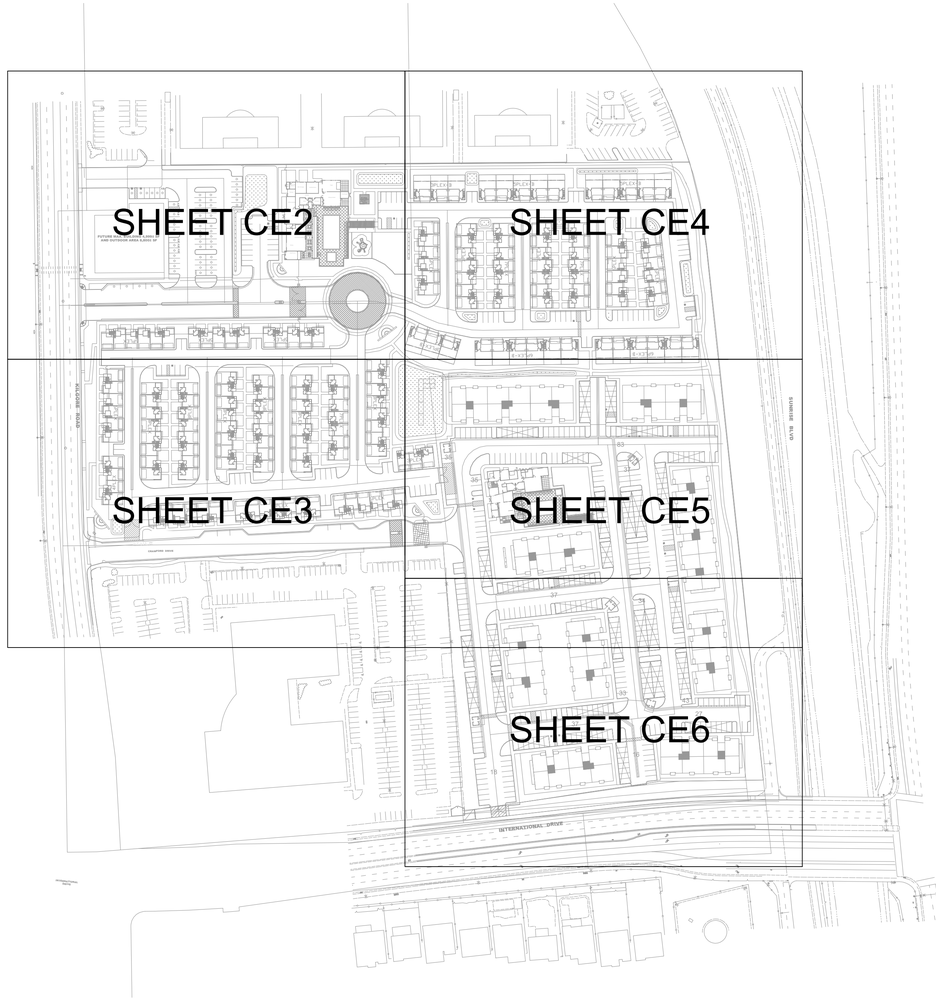
December 17, 2019 8:41 AM



15 FIXTURE NUMBER
S1T4W FIXTURE TAG
MH: 18 MOUNTING HEIGHT OF HEAD

1 CE1 OVERALL PLAN
NO SCALE

Calculation Summary					
Label	CalcType	Max	Min	Max/Min	Avg
CalcPts_1	Illuminance	10.9	0.5	21.80	2.49

Luminaire Schedule							
Symbol	Label	Arrangement	Lum. Lumens	Lum. Watts	Qty	BUG Rating	Description
	E1	SINGLE	3691	29.77	87	B2-U3-G1	Lumark - RPGC2SS - PDSITION_2
	D25WQ	BACK-BACK	12783	113	3	B4-U0-G2	McGraw Edison - GLNA-AF-02-LED-E1-5WQ
	S1SL2H	SINGLE	4689	59	6	B1-U0-G1	McGraw Edison - GLNA-AF-01-LED-E1-SL2-HSS
	S1T4W	SINGLE	6168	59	47	B1-U0-G2	McGraw Edison - GLNA-AF-01-LED-E1-T4W
	S25WQ	SINGLE	12783	113	4	B4-U0-G2	McGraw Edison - GLNA-AF-02-LED-E1-5WQ
	S2SL2	SINGLE	11889	113	1	B2-U0-G3	McGraw Edison - GLNA-AF-02-LED-E1-SL2
	S2T4W	SINGLE	12052	113	32	B2-U0-G2	McGraw Edison - GLNA-AF-02-LED-E1-T4W
	W18	SINGLE	2103	18.2	133	B1-U0-G0	Lumark - XTOR2B-W

RSC ENGINEERING
1420 Rocky Ridge Drive, Suite 150
Roseville, CA 95661
Ph: 916.788.2884 Fax: 916.788.4408

1	5/24/22	WVN	CITY APPROVED

GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
SACRAMENTO, CA 95833

PROJECT NO: 21103
DRAWN BY: WVN
CHECKED BY: WVN
DESIGNED BY: WVN

PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER
NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
SCHEDULES

SHEET NO.
CE1
1 OF 6

DATE: June 8, 2022

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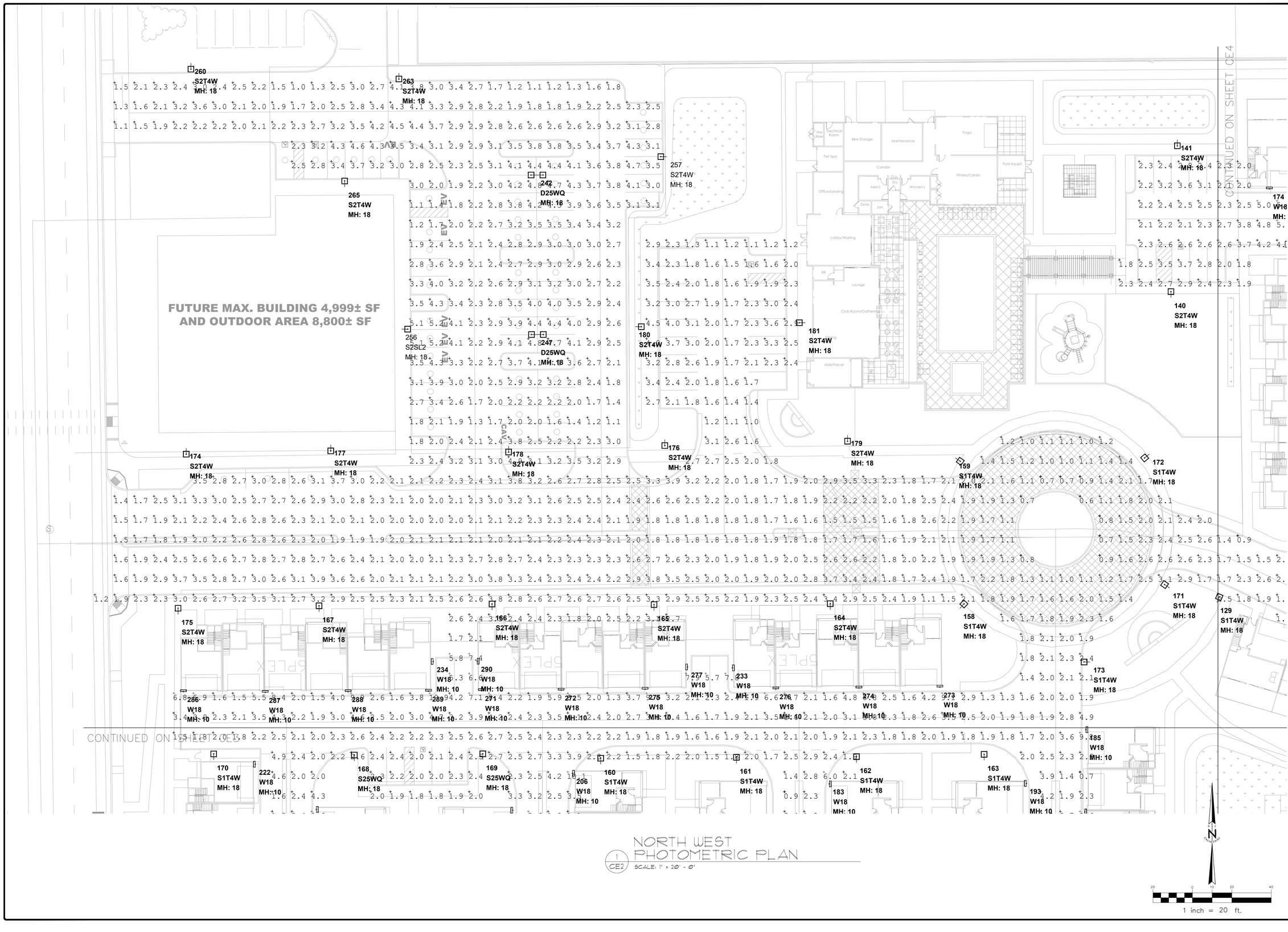

NORTH WEST
PHOTOMETRIC PLAN

1 CE2 SCALE: 1" = 20' - 0"

1 inch = 20 ft.

							DATE	CITY APPROVED	BY	DNG INT.	DESCRIPTION	DATE	REV NO.

GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
SACRAMENTO, CA 95833

LICENSED PROFESSIONAL ENGINEER
No.9668
Exp.9-30-22
ELECTRICAL
STATE OF CALIFORNIA
5/24/22

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1420 Rocky Ridge Drive, Suite 150
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PROJECT NO:	21103
DRAWN BY:	WVN
CHECKED BY:	WVN
DESIGNED BY:	WVN

PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER
NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
PHOTOMETRIC PLAN NW

SHEET NO.
CE2
2 OF 6

DATE: June 8, 2022

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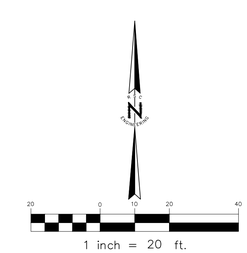
PLOT DATE: May 24, 2022 - 3:04:9 PM

SOUTH WEST
PHOTOMETRIC PLAN
1 CE3
SCALE: 1" = 20' - 0"



GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
SACRAMENTO, CA 95833

REV NO.	DATE	DESCRIPTION	ENG INT.	BY	DATE
				CITY APPROVED	

REGISTERED PROFESSIONAL ENGINEER
WILLIAM V. WUNDER
No. 9668
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ELECTRICAL
STATE OF CALIFORNIA
5/24/22

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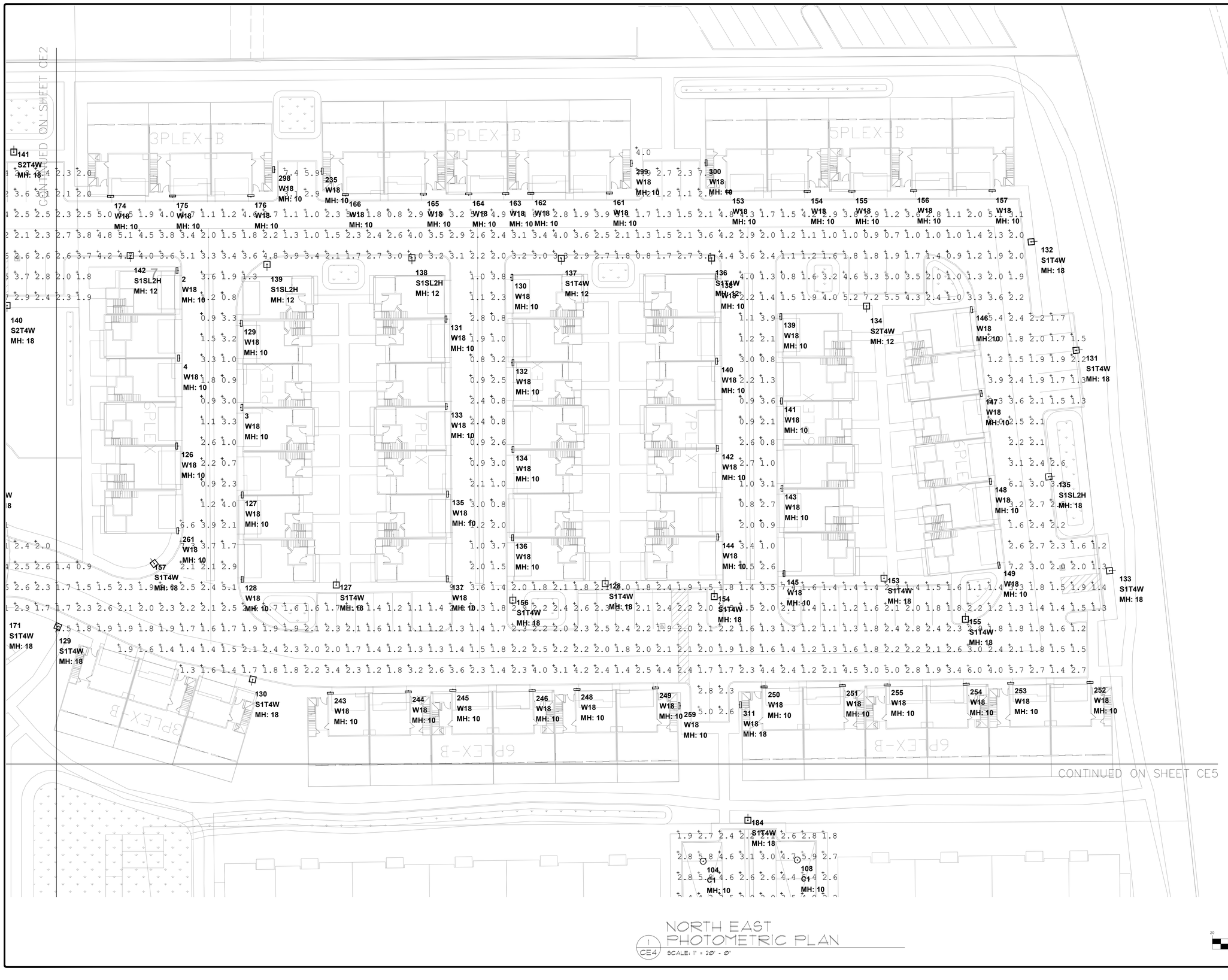
PROJECT NO: 21103
DRAWN BY: WVN
CHECKED BY: WVN
DESIGNED BY: WVN

PRELIMINARY PLANS FOR
THE RESIDENCES AT
CAPITAL CENTER
NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
PHOTOMETRIC
PLAN SW

SHEET NO.
CE3
3 OF 6

DATE: June 8, 2022



NORTH EAST
PHOTOMETRIC PLAN
1 CE4
SCALE: 1" = 20' - 0"

GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
SACRAMENTO, CA 95833

REV NO.	DATE	DESCRIPTION	ENG INT.	BY	DATE

REGISTERED PROFESSIONAL ENGINEER
WILLIAM V. NOBLE
No. 9668
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STATE OF CALIFORNIA
5/24/22

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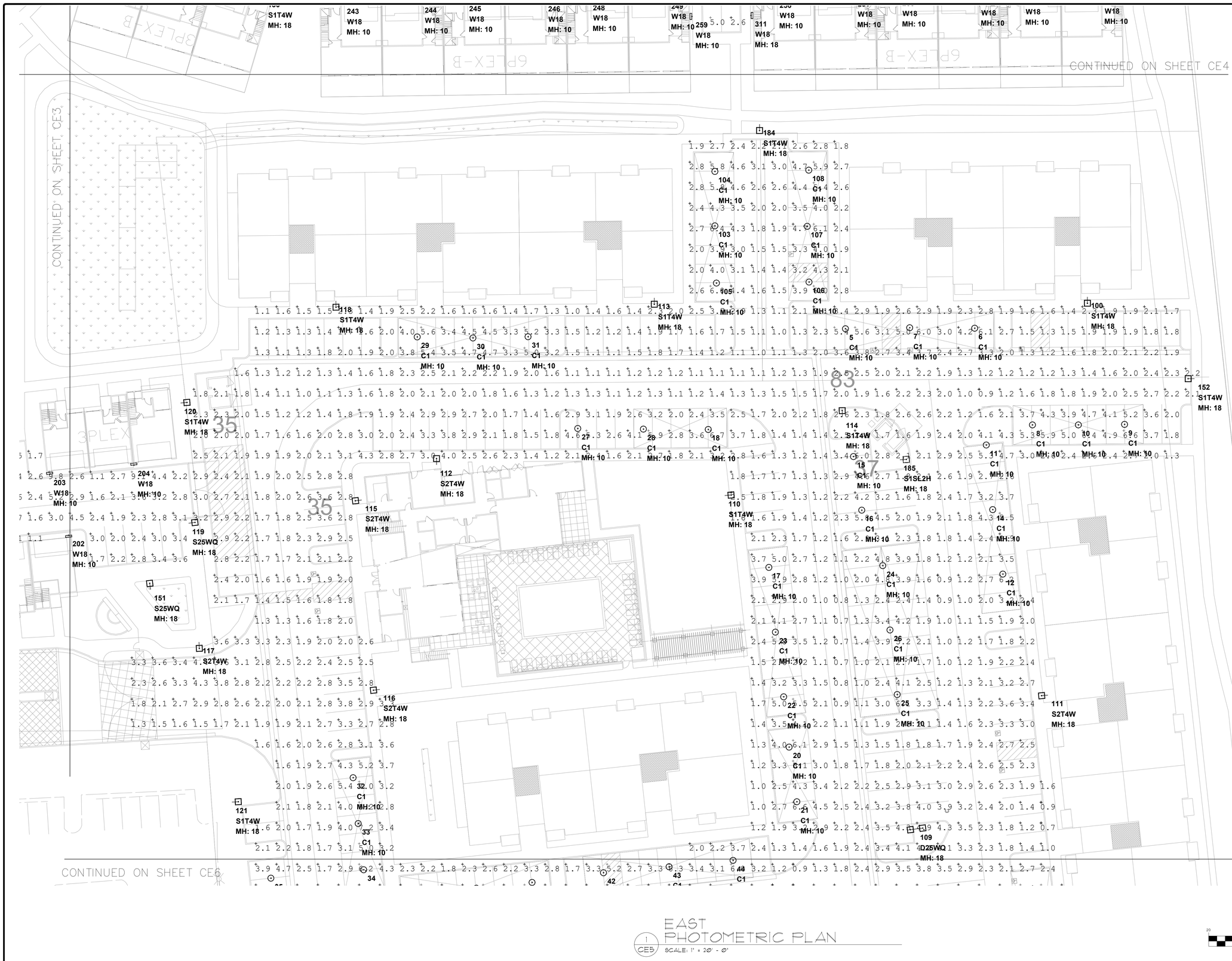
PROJECT NO: 21103
DRAWN BY: WVN
CHECKED BY: WVN
DESIGNED BY: WVN

PRELIMINARY PLANS FOR
THE RESIDENCES AT
CAPITAL CENTER
NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
PHOTOMETRIC
PLAN NE

SHEET NO.
CE4
4 OF 6

DATE: June 8, 2022



EAST PHOTOMETRIC PLAN
1 CE5 SCALE: 1" = 20' - 0"

GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE, SUITE 101
SACRAMENTO, CA 95833

NO.	DATE	DESCRIPTION	DWG INIT.	BY	CITY APPROVED	DATE

RSC ENGINEERING
1420 Rocky Ridge Drive, Suite 150
Roseville, CA 95661
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PROJECT NO:	21103
DRAWN BY:	WVN
CHECKED BY:	WVN
DESIGNED BY:	WVN

PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER
NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
PHOTOMETRIC PLAN EAST

SHEET NO.
CE5
5 OF 6

DATE: June 8, 2022

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PLOT DATE: May 24, 2022 - 3:32:03 PM

SOUTH EAST PHOTOMETRIC PLAN
1 CE6
SCALE: 1" = 20' - 0"

GGC HIGHWAY 50 LLC
2484 NATOMAS PARK DRIVE,
SUITE 101
SACRAMENTO, CA 95833

REV NO.	DATE	DESCRIPTION	ENG INT.	BY	DATE

REGISTERED PROFESSIONAL ENGINEER
WILLIAM V. NUTTERBERG
No. 9668
Exp. 9-30-22
ELECTRICAL
STATE OF CALIFORNIA
5/24/22

RSC ENGINEERING
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PROJECT NO: 21103
DRAWN BY: WVN
CHECKED BY: WVN
DESIGNED BY: WVN

PRELIMINARY PLANS FOR THE RESIDENCES AT CAPITAL CENTER
NEC KILGORE ROAD & INTERNATIONAL DR.
RANCHO CORDOVA, CA

SHEET TITLE
PHOTOMETRIC PLAN SE

SHEET NO.
CE6
6 OF 6

DATE: June 8, 2022

PRELIMINARY PLANT SCHEDULE

	SHADE TREES	195	
	ACER RUBRUM 'OCTOBER GLORY' / OCTOBER GLORY RED MAPLE (40'X35')		24" BOX, M
	PISTACIA CHINENSIS / CHINESE PISTACHE (40'X40')		24" BOX, L
	ULMUS CARPINIFOLIA X PARVIFOLIA `FRONTIER` / FRONTIER ELM (40'X35') *		24" BOX, M
	ZELKOVA SERRATA 'VILLAGE GREEN' / VILLAGE GREEN SAWLEAF ZELKOVA (50'X35')		24" BOX, M
	SCREEN TREES	84	
	CEDRUS DEODARA / DEODAR CEDAR (60'X40')*		15 GAL., L
	PODOCARPUS GRACILIOR / FERN PINE (40'X20')*		15 GAL., M
	QUERCUS ILEX / HOLLY OAK (60'X40')*		15 GAL., L
	ACCENT TREES	275	
	CERCIS OCCIDENTALIS / WESTERN REDBUD (18'X18')		15 GAL., L
	LAGERSTROEMIA INDICA X FAURIEI 'ARAPAHO' / RED CRAPE MYRTLE (25'X20')		15 GAL., L
	MAGNOLIA GRANDIFLORA 'LITTLE GEM' / LITTLE GEM DWARF MAGNOLIA (25'X15')*		15 GAL., M
	X CHITALPA TASHKENTENSIS 'PINK DAWN' / PINK DAWN CHITALPA (30'X25')		15 GAL., L
	SUBORDINATE TREES	189	
	ACER BUERGERIANUM / TRIDENT MAPLE (25'X25')		15 GAL., M
	GINKGO BILOBA 'PRINCETON SENTRY' / MAIDENHAIR TREE (40'X20')		15 GAL., M
	KOELREUTERIA PANICULATA / GOLDEN RAIN TREE (35'X30')		15 GAL., M
	ZELKOVA SERRATA 'MUSASHINO' / MUSASHINO SAWLEAF ZELKOVA (40'X15')		15 GAL., M
	STREET TREE	61	
	QUERCUS RUBRA / RED OAK (60'X45')		24" BOX, M
	ULMUS PARVIFOLIA 'TRUE GREEN' / TRUE GREEN LACEBARK ELM (50'X40')*		24" BOX, M
	SHRUB AREA		
	ACACIA COGNATA 'ACCOG01' / COUSIN ITT LITTLE RIVER WATTLE (3'X5')		5 GAL., L
	CALLISTEMON VIMINALIS 'LITTLE JOHN' / LITTLE JOHN WEEPING BOTTLEBRUSH (3'X3')		5 GAL., L
	CISTUS X PURPUREUS / ORCHID ROCKROSE (4'X4')		5 GAL., L
	DIANELLA TASMANICA 'VARIEGATA' / VARIEGATED FLAX LILY (4'X3')		5 GAL., L
	DIETES BICOLOR / FORTNIGHT LILY (3'X3')		5 GAL., L
	ELAEOCARPUS DECIPIENS 'MONPROUD' / JAPANESE BLUEBERRY TREE DWARF (10'X8')		5 GAL., L
	GREVILLEA X `NOELLII` / NOEL GREVILLEA (4'X5')		5 GAL., L
	HYPERICUM X MOSERANUM / GOLD FLOWER (3'X3')		5 GAL., L
	MUHLENBERGIA RIGENS / DEER GRASS (4'X4')		5 GAL., L
	NANDINA DOMESTICA 'GULF STREAM' TM / GULF STREAM HEAVENLY BAMBOO (4'X2')		5 GAL., L
	PRUNUS CAROLINIANA 'MONUS' TM / BRIGHT 'N TIGHT LAUREL CHERRY (8'X6')		5 GAL., L
	RHAMNUS CALIFORNICA `MOUND SAN BRUNO` / CALIFORNIA COFFEEBERRY (5'X8')		5 GAL., L
	RHAPHIOLEPIS UMBELLATA / YEDDA HAWTHORN (5'X5')		5 GAL., L
	RHAPHIOLEPIS UMBELLATA `MINOR` / DWARF YEDDA HAWTHORNE (4'X4')		5 GAL., L
	GROUND COVER AREA		
	ARCTOSTAPHYLOS X 'EMERALD CARPET' / EMERALD CARPET MANZANITA (12"X5')		1 GAL., L
	COPROSMA KIRKII 'VERDE VISTA' / VERDE VISTA CREEPING COPROSMAT (3'X6')		1 GAL., L
	COTONEASTER DAMMERI 'LOWFAST' / LOWFAST BEARBERRY COTONEASTER (8"X6')		1 GAL., L
	LOMANDRA LONGIFOLIA 'BREEZE' / BREEZE MAT RUSH (3'X3')		1 GAL., L
	TEUCRIUM X LUCIDRYS PROSTRATUM / GERMANDER (6"X3')		1 GAL., L
	TURF AREA	21,347 SF	
	TURF SOD BOLERO PLUS / FESCUE BLEND		SOD, H
	STORMWATER FEATURES		
	CHONDROPETALUM TECTORUM 'DWARF' / DWARF CAPE RUSH		1 GAL., L
	JUNCUS PATENS 'ELK BLUE' / SPREADING RUSH		1 GAL., L
	LEYMUS CONDENSATUS 'CANYON PRINCE' / CANYON PRINCE GIANT WILD RYE		1 GAL., L
	MUHLENBERGIA RIGENS / DEER GRASS		1 GAL., L
	SISYRINCHIUM BELLUM / BLUE-EYED GRASS		1 GAL., L
	TURF SOD BIOFILTRATION SOD / DELTA BLUEGRASS BIOFILTRATION SOD		SOD, M

25% OF TREES REQUIRED TO BE 24" BOX MINIMUM.
TOTAL PROPOSED TREES: 804
TREES 24" OR LARGER: 256
% PROVIDED: 31%

30% OF TREES REQUIRED TO BE A EVERGREEN SPECIES
TOTAL PROPOSED TREES: 804
EVERGREEN TREES*: 244
% PROVIDED: 30%

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	PROPOSED BUILDINGS - SEE ARCHITECTURAL PLANS.
2	PROPOSED TRASH ENCLOSURE - SEE ARCHITECTURAL PLANS.
3	PROPOSED CARPORTS - SEE ARCHITECTURAL PLANS.
4	PROPOSED STORMWATER FEATURES - SEE CIVIL PLANS.
5	PROPOSED MONUMENT SIGNAGE.
6	PROPOSED POOL AMENITY AREA.
7	PROPOSED PICNIC AREA.
8	PROPOSED TOT LOT.
9	PROPOSED FIRE PIT WITH SHADE STRUCTURE.
10	PROPOSED OPEN TURF AREA.
11	PROPOSED 6` OPEN METAL FENCE. SEE SHEET PL2, DETAIL 3.
12	PROPOSED 6` METAL PEDESTRIAN GATE. SEE SHEET PL2, DETAIL 2.
13	PROPOSED 5` WOOD FENCE FOR PRIVATE BACKYARDS. SEE SHEET PL2, DETAIL 4.
14	PROPOSED MAIN ENTRY GATE, TOWNHOMES. SEE SHEET PL2, DETAIL 1.
15	PROPOSED MAIN ENTRY GATE, APARTMENTS. SEE SHEET PL2, DETAIL 1.
16	PROPOSED EVA GATE.
17	PROPOSED 36" DECORATIVE METAL FENCE ON 36" CMU WALL. SEE SHEET PL2, DETAIL 5.
18	PROPOSED ENTRY GATE KEYPAD. SEE SHEET PL2, DETAIL 6.

GENERAL PLANTING NOTES

1. ROOT BARRIERS ARE REQUIRED FOR ALL TREES PLANTED WITHIN 10' OF PAVING OR HARDSCAPE.
2. ALL SHRUB AND GROUNDCOVER AREAS SHALL RECEIVE A MINIMUM 3" LAYER OF BARK CHIP MULCH TOP DRESSING.
3. APPLY PRE-EMERGENT IN ALL NON-SEEDED LANDSCAPE AREAS.
4. INSTALL A WEED CONTROL LAYER IN ALL BARK AND/OR ROCK AREAS.
5. ALL MECHANICAL EQUIPMENT WILL BE SCREENED USING EVERGREEN PLANT MATERIAL.
6. TREES SHALL BE A MINIMUM OF 8' FROM UNDERGROUND UTILITIES.

GENERAL IRRIGATION NOTES

1. ALL PLANTING AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC IRRIGATION SYSTEM THAT WILL BE COMPLIANT WITH THE STATE'S MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO).
2. DRIP IRRIGATION WILL BE USED ON ALL SHRUB GROUND COVER AREAS WITH ROTARY SPRAY HEADS ON THE TURF. IRRIGATION CONTROLLER SHALL BE A SMART CONTROLLER USING ETO TO DETERMINE SYSTEM RUN TIMES. OWNER WILL BE RESPONSIBLE FOR MAINTAIN THE IRRIGATION SYSTEM AND PLANT MATERIAL.

REGISTERED LANDSCAPE ARCHITECT
KEVIN C. LEAMY
No. 4965
Signature
12/31/22
Renewal Date
XX/XX/XX
Date
STATE OF CALIFORNIA

FUHRMAN LEAMY LAND GROUP
DESIGN · SERVICE · SOLUTIONS
2140 PROFESSIONAL DRIVE, SUITE 115 ROSEVILLE, CA 95661
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COLE PARTNERS DEVELOPMENT COMPANY
REAL ESTATE INVESTMENT, DEVELOPMENT & MANAGEMENT

Preliminary Landscape Plan PL1

THE RESIDENCES AT CAPITAL CENTER

RANCHO CORDOVA, CA.

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June 8, 2022 | MR200458.00

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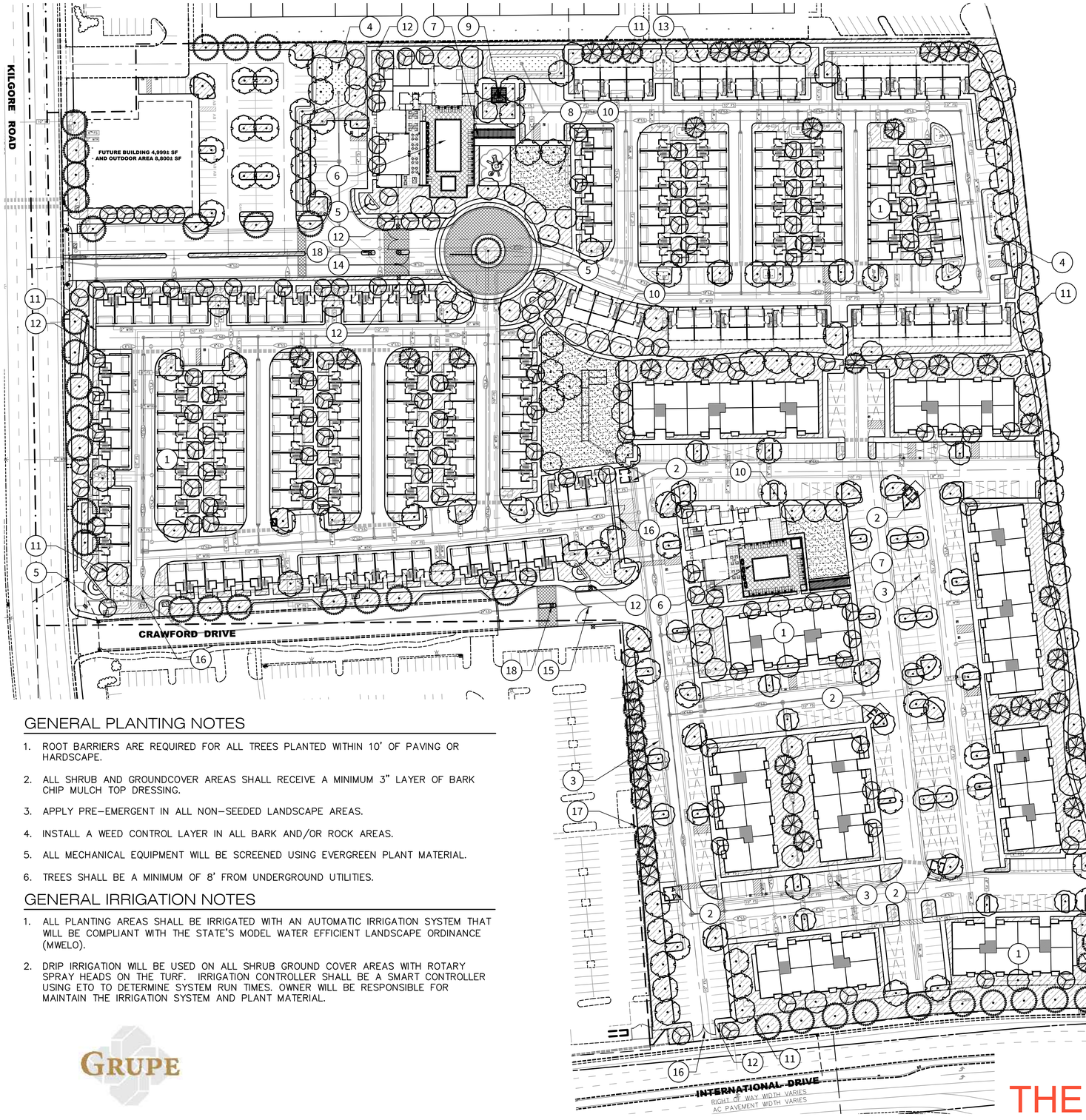

PRELIMINARY PLANT SCHEDULE

SHADE TREES	195	
ACER RUBRUM 'OCTOBER GLORY' / OCTOBER GLORY RED MAPLE (40'X35')		24" BOX, M
PISTACIA CHINENSIS / CHINESE PISTACHE (40'X40')		24" BOX, L
ULMUS CARPINIFOLIA X PARVIFOLIA `FRONTIER` / FRONTIER ELM (40'X35') *		24" BOX, M
ZELKOVA SERRATA 'VILLAGE GREEN' / VILLAGE GREEN SAWLEAF ZELKOVA (50'X35')		24" BOX, M
SCREEN TREES	84	
CEDRUS DEODARA / DEODAR CEDAR (60'X40')*		15 GAL., L
PODOCARPUS GRACILIOR / FERN PINE (40'X20')*		15 GAL., M
QUERCUS ILEX / HOLLY OAK (60'X40')*		15 GAL., L
ACCENT TREES	275	
CERCIS OCCIDENTALIS / WESTERN REDBUD (18'X18')		15 GAL., L
LAGERSTROEMIA INDICA X FAURIEI 'ARAPAHO' / RED CRAPE MYRTLE (25'X20')		15 GAL., L
MAGNOLIA GRANDIFLORA 'LITTLE GEM' / LITTLE GEM DWARF MAGNOLIA (25'X15')*		15 GAL., M
X CHITALPA TASHKENTENSIS 'PINK DAWN' / PINK DAWN CHITALPA (30'X25')		15 GAL., L
SUBORDINATE TREES	189	
ACER BUERGERIANUM / TRIDENT MAPLE (25'X25')		15 GAL., M
GINKGO BILOBA 'PRINCETON SENTRY' / MAIDENHAIR TREE (40'X20')		15 GAL., M
KOELREUTERIA PANICULATA / GOLDEN RAIN TREE (35'X30')		15 GAL., M
ZELKOVA SERRATA 'MUSASHINO' / MUSASHINO SAWLEAF ZELKOVA (40'X15')		15 GAL., M
STREET TREE	61	
QUERCUS RUBRA / RED OAK (60'X45')		24" BOX, M
ULMUS PARVIFOLIA 'TRUE GREEN' / TRUE GREEN LACEBARK ELM (50'X40')*		24" BOX, M
SHRUB AREA		
ACACIA COGNATA 'ACCOG01' / COUSIN ITT LITTLE RIVER WATTLE (3'X5')		5 GAL., L
CALLISTEMON VIMINALIS 'LITTLE JOHN' / LITTLE JOHN WEEPING BOTTLEBRUSH (3'X3')		5 GAL., L
CISTUS X PURPUREUS / ORCHID ROCKROSE (4'X4')		5 GAL., L
DIANELLA TASMANICA 'VARIEGATA' / VARIEGATED FLAX LILY (4'X3')		5 GAL., L
DIETES BICOLOR / FORTNIGHT LILY (3'X3')		5 GAL., L
ELAEOCARPUS DECIPIENS 'MONPROUD' / JAPANESE BLUEBERRY TREE DWARF (10'X8')		5 GAL., L
GREVILLEA X `NOELLII` / NOEL GREVILLEA (4'X5')		5 GAL., L
HYPERICUM X MOSERANUM / GOLD FLOWER (3'X3')		5 GAL., L
MUHLENBERGIA RIGENS / DEER GRASS (4'X4')		5 GAL., L
NANDINA DOMESTICA 'GULF STREAM' TM / GULF STREAM HEAVENLY BAMBOO (4'X2')		5 GAL., L
PRUNUS CAROLINIANA 'MONUS' TM / BRIGHT 'N TIGHT LAUREL CHERRY (8'X6')		5 GAL., L
RHAMNUS CALIFORNICA `MOUND SAN BRUNO` / CALIFORNIA COFFEEBERRY (5'X8')		5 GAL., L
RHAPHIOLEPIS UMBELLATA / YEDDA HAWTHORN (5'X5')		5 GAL., L
RHAPHIOLEPIS UMBELLATA `MINOR` / DWARF YEDDA HAWTHORNE (4'X4')		5 GAL., L
GROUND COVER AREA		
ARCTOSTAPHYLOS X 'EMERALD CARPET' / EMERALD CARPET MANZANITA (12"X5')		1 GAL., L
COPROSMA KIRKII 'VERDE VISTA' / VERDE VISTA CREEPING COPROSMAT (3'X6')		1 GAL., L
COTONEASTER DAMMERI 'LOWFAST' / LOWFAST BEARBERRY COTONEASTER (8"X6')		1 GAL., L
LOMANDRA LONGIFOLIA 'BREEZE' / BREEZE MAT RUSH (3'X3')		1 GAL., L
TEUCRIUM X LUCIDRYS PROSTRATUM / GERMANDER (6"X3')		1 GAL., L
TURF AREA	21,347 SF	
TURF SOD BOLERO PLUS / FESCUE BLEND		SOD, H
STORMWATER FEATURES		
CHONDROPETALUM TECTORUM 'DWARF' / DWARF CAPE RUSH		1 GAL., L
JUNCUS PATENS 'ELK BLUE' / SPREADING RUSH		1 GAL., L
LEYMUS CONDENSATUS 'CANYON PRINCE' / CANYON PRINCE GIANT WILD RYE		1 GAL., L
MUHLENBERGIA RIGENS / DEER GRASS		1 GAL., L
SISYRINCHIUM BELLUM / BLUE-EYED GRASS		1 GAL., L
TURF SOD BIOFILTRATION SOD / DELTA BLUEGRASS BIOFILTRATION SOD		SOD, M

25% OF TREES REQUIRED TO BE 24" BOX MINIMUM.
TOTAL PROPOSED TREES: 804
TREES 24" OR LARGER: 256
% PROVIDED: 31%

30% OF TREES REQUIRED TO BE A EVERGREEN SPECIES
TOTAL PROPOSED TREES: 804
EVERGREEN TREES*: 244
% PROVIDED: 30%

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	PROPOSED BUILDINGS - SEE ARCHITECTURAL PLANS.
2	PROPOSED TRASH ENCLOSURE - SEE ARCHITECTURAL PLANS.
3	PROPOSED CARPORTS - SEE ARCHITECTURAL PLANS.
4	PROPOSED STORMWATER FEATURES - SEE CIVIL PLANS.
5	PROPOSED MONUMENT SIGNAGE.
6	PROPOSED POOL AMENITY AREA.
7	PROPOSED PICNIC AREA.
8	PROPOSED TOT LOT.
9	PROPOSED FIRE PIT WITH SHADE STRUCTURE.
10	PROPOSED OPEN TURF AREA.
11	PROPOSED 6` OPEN METAL FENCE. SEE SHEET PL2, DETAIL 3.
12	PROPOSED 6` METAL PEDESTRIAN GATE. SEE SHEET PL2, DETAIL 2.
13	PROPOSED 5` WOOD FENCE FOR PRIVATE BACKYARDS. SEE SHEET PL2, DETAIL 4.
14	PROPOSED MAIN ENTRY GATE, TOWNHOMES. SEE SHEET PL2, DETAIL 1.
15	PROPOSED MAIN ENTRY GATE, APARTMENTS. SEE SHEET PL2, DETAIL 1.
16	PROPOSED EVA GATE.
17	PROPOSED 36" DECORATIVE METAL FENCE ON 36" CMU WALL. SEE SHEET PL2, DETAIL 5.
18	PROPOSED ENTRY GATE KEYPAD. SEE SHEET PL2, DETAIL 6.

GENERAL PLANTING NOTES

1. ROOT BARRIERS ARE REQUIRED FOR ALL TREES PLANTED WITHIN 10' OF PAVING OR HARDSCAPE.
2. ALL SHRUB AND GROUNDCOVER AREAS SHALL RECEIVE A MINIMUM 3" LAYER OF BARK CHIP MULCH TOP DRESSING.
3. APPLY PRE-EMERGENT IN ALL NON-SEEDED LANDSCAPE AREAS.
4. INSTALL A WEED CONTROL LAYER IN ALL BARK AND/OR ROCK AREAS.
5. ALL MECHANICAL EQUIPMENT WILL BE SCREENED USING EVERGREEN PLANT MATERIAL.
6. TREES SHALL BE A MINIMUM OF 8' FROM UNDERGROUND UTILITIES.

GENERAL IRRIGATION NOTES

1. ALL PLANTING AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC IRRIGATION SYSTEM THAT WILL BE COMPLIANT WITH THE STATE'S MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO).
2. DRIP IRRIGATION WILL BE USED ON ALL SHRUB GROUND COVER AREAS WITH ROTARY SPRAY HEADS ON THE TURF. IRRIGATION CONTROLLER SHALL BE A SMART CONTROLLER USING ETO TO DETERMINE SYSTEM RUN TIMES. OWNER WILL BE RESPONSIBLE FOR MAINTAIN THE IRRIGATION SYSTEM AND PLANT MATERIAL.

REGISTERED LANDSCAPE ARCHITECT
KEITH C. LEAMY
No. 4965
Signature
12/31/22
Renewal Date
XX/XX/XX
Date
STATE OF CALIFORNIA

FUHRMAN LEAMY LAND GROUP
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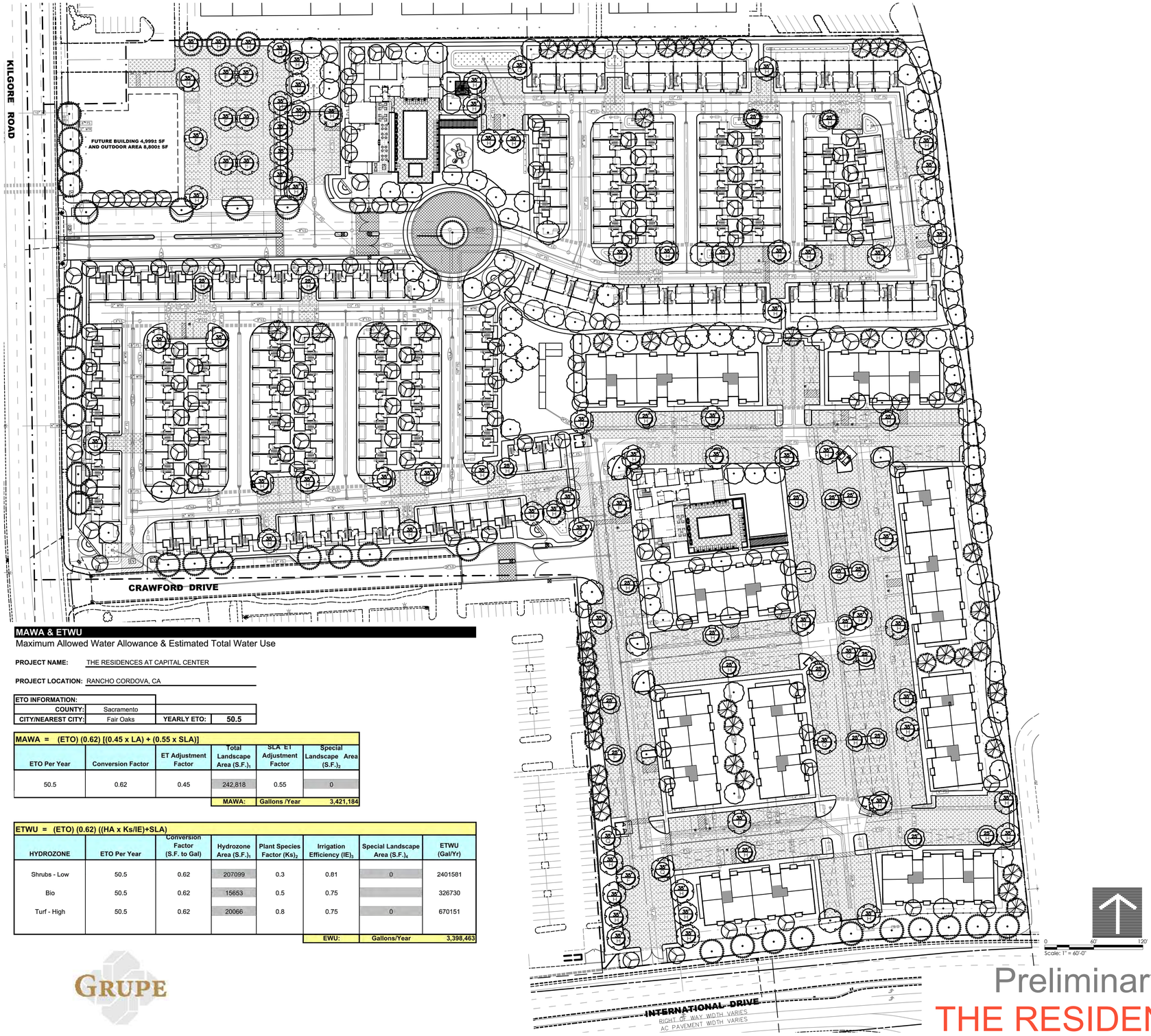

MAWA & ETWU

Maximum Allowed Water Allowance & Estimated Total Water Use

PROJECT NAME: THE RESIDENCES AT CAPITAL CENTER

PROJECT LOCATION: RANCHO CORDOVA, CA

ETO INFORMATION:			
COUNTY:	Sacramento		
CITY/NEAREST CITY:	Fair Oaks	YEARLY ETO:	50.5

MAWA = (ETO) (0.62) [(0.45 x LA) + (0.55 x SLA)]

ETO Per Year	Conversion Factor	ET Adjustment Factor	Total Landscape Area (S.F.)$_1$	SLA ET Adjustment Factor	Special Landscape Area (S.F.)$_2$
50.5	0.62	0.45	242,818	0.55	0
			MAWA:	Gallons /Year	3,421,184

ETWU = (ETO) (0.62) ((HA x Ks/IE)+SLA)

HYDROZONE	ETO Per Year	Conversion Factor (S.F. to Gal)	Hydrozone Area (S.F.)$_1$	Plant Species Factor (Ks)$_2$	Irrigation Efficiency (IE)$_3$	Special Landscape Area (S.F.)$_4$	ETWU (Gal/Yr)
Shrubs - Low	50.5	0.62	207099	0.3	0.81	0	2401581
Bio	50.5	0.62	15653	0.5	0.75		326730
Turf - High	50.5	0.62	20066	0.8	0.75	0	670151
					EWU:	Gallons/Year	3,398,463

SHADE STUDY CALCULATIONS

City of Rancho Cordova

PROJECT:	RANCHO CORDOVA TOWNHOMES	5/31/2022
TOTAL SURFACED AREA		59,974
TOTAL SHADE REQUIRED: 50%		29,987
SHADE PROVIDED BY TREES:		30,330
SHADE PROVIDED BY CARPORTS:		0
TOTAL SHADE PROVIDED:	51%	30,330

SYMBOL	CONCEPTUAL USE	QTY. FULL	QTY. 3/4	QTY. 1/2	QTY. 1/4		SUBTOTAL SQ.	TOTAL SQ. FT.
35' DIA TREES LEGEND		962	722	481	240			
Acer rubrum	SHADE TREE							
Cedrus deodara	SCREEN TREE							
Podocarpus gracilior	SCREEN TREE							
Pistacia chinensis	SHADE TREE							
Quercus ilex	SHADE TREE	10	0	40	1	X	29,100	
Quercus rubra	SHADE TREE/SCREEN TREE							
Ulmus s. 'Village Green'	SHADE TREE							
Ulmus p. 'True Green'	STREET TREE							
Zelkova serrata	SHADE TREE/STREET TREE							
							TOTAL	29,100
25' DIA TREES LEGEND		491	368	246	123			
Acer burgeranum	SUBORDINATE TREE							
Ginkgo biloba	SUBORDINATE TREE	0	0	5	0	X	1,230	
Koelreuteria paniculata	SUBORDINATE TREE							
							TOTAL	1,230
20' DIA TREES LEGEND		314	236	157	79			
Cercia canadensis	ACCENT TREE							
Chitalpa x tashkentensis	ACCENT TREE							
Lagerstroemia i. Tuscarora	ACCENT TREE					X	0	
Magnolia g. Little Gem	ACCENT TREE							
Zelkova s. Musashino	ACCENT TREE							
							TOTAL	0
TOTAL								30,330

SHADE STUDY CALCULATIONS

City of Rancho Cordova

PROJECT:	RANCHO CORDOVA APARTMENTS	5/31/2022
TOTAL SURFACED AREA		141,940
TOTAL SHADE REQUIRED: 50%		70,970
SHADE PROVIDED BY TREES:		20,174
SHADE PROVIDED BY CARPORTS:		64,800
TOTAL SHADE PROVIDED:	60%	84,974

SYMBOL	CONCEPTUAL USE	QTY. FULL	QTY. 3/4	QTY. 1/2	QTY. 1/4		SUBTOTAL SQ.	TOTAL SQ. FT.
35' DIA TREES LEGEND		962	722	481	240			
Acer rubrum	SHADE TREE							
Cedrus deodara	SCREEN TREE							
Podocarpus gracilior	SCREEN TREE							
Pistacia chinensis	SHADE TREE							
Quercus ilex	SHADE TREE	5	0	20	6	X	15,870	
Quercus rubra	SHADE TREE/SCREEN TREE							
Ulmus s. 'Village Green'	SHADE TREE							
Ulmus p. 'True Green'	STREET TREE							
Zelkova serrata	SHADE TREE/STREET TREE							
							TOTAL	15,870
25' DIA TREES LEGEND		491	368	246	123			
Acer burgeranum	SUBORDINATE TREE							
Ginkgo biloba	SUBORDINATE TREE	1	0	14	3	X	4,304	
Koelreuteria paniculata	SUBORDINATE TREE							
							TOTAL	4,304
20' DIA TREES LEGEND		314	236	157	79			
Cercia canadensis	ACCENT TREE							
Chitalpa x tashkentensis	ACCENT TREE							
Lagerstroemia i. Tuscarora	ACCENT TREE					X	0	
Magnolia g. Little Gem	ACCENT TREE							
Zelkova s. Musashino	ACCENT TREE							
							TOTAL	0
TOTAL								20,174

REGISTERED LANDSCAPE ARCHITECT
KEVIN C. LEAMY
No. 4965
Signature
12/31/22
Renewal Date
XX/XX/XX
Date
STATE OF CALIFORNIA

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Preliminary Shade Calculations PL2

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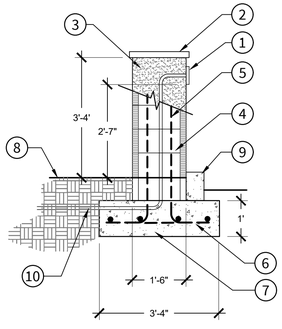
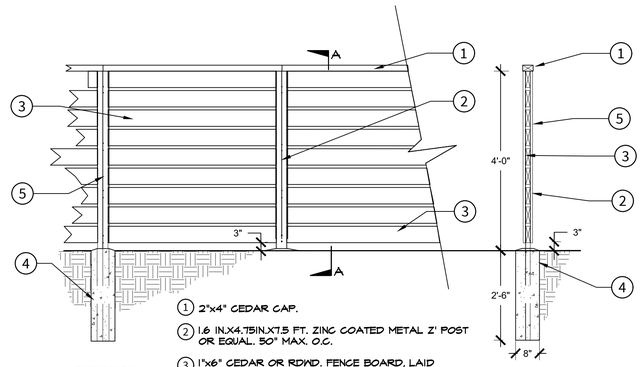


1. KEYPAD BY OTHERS.
2. PRECAST CONCRETE CAP BY HANDALSTONE. MODEL: PC-10-20X2 COLOR: SEQUOIA - STONE FINISH- 1303
3. STUCCO FINISH TO MATCH CLUBHOUSE TRIM COLOR. SEE ARCH PLANS.
4. 8"X8"X16" C.M.U BLOCK. GROUT ALL CELLS SOLID.#4 REBAR VERTICAL AT EACH CORNER.
5. #4 REBAR VERTICAL AT EACH CORNER.
6. #4 REBAR HORIZONTAL.
7. CONCRETE FOOTING.
8. FINISH GRADE.
9. CONCRETE CURB.
10. PROVIDE 1" CONDUIT FOR ELECTRICAL AND GATE WIRING.

FINISH:
PAINT ALL METAL WITH TWO COATS SHOP PRIMER AND ONE COAT ENAMEL PAINT. COLOR PER FINISH SCHEDULE.

6 ENTRY GATE KEYPAD

1/2" = 1'-0" R-21053-63



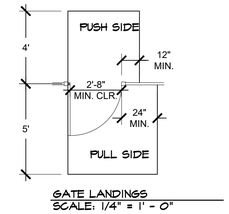
ELEVATION **SECTION A**

1. 2"x4" CEDAR CAP.
2. 1.6 IN.X4.75IN.X7.5 FT. ZINC COATED METAL Z' POST OR EQUAL. 50" MAX. O.C.
3. 1"x6" CEDAR OR RDWD. FENCE BOARD, LAID STACKED HORIZ. WITH 1" AIR GAP.
4. 8"x30" CONCRETE FOOTING, TYP. SLOPE TOP AWAY FROM POST TO PREVENT STANDING WATER.
5. 1"X4" TRIM OVER Z POST BOTH SIDES.

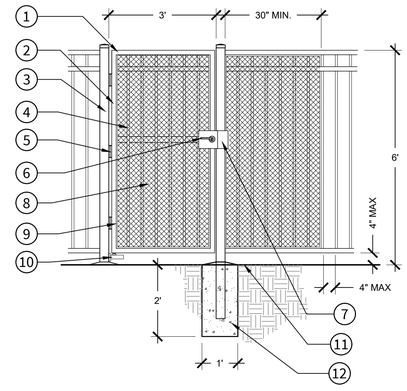
NOTE:
ALL HARDWARE ZINC COATED SCREWS. FINISH ALL WOOD
TWO COATS SEMI TRANSPARENT PER OWNER'S SPECIFICATION

4 WOOD FENCE - HORIZ. BOARD

1/2" = 1'-0" R-21053-72



GATE LANDINGS
SCALE: 1/4" = 1' - 0"

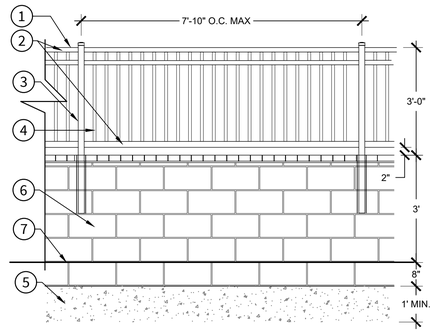


1. WELDED GATE PANEL. DECORATIVE STYLE TO MATCH FENCE DETAIL.
2. 1-1/2" SQ. RAILS - 16 Ga.
3. 3" SQ. POST, BOTH SIDES OF GATE - 11 Ga. WITH CAP. PROVIDE MIN. 36" OPENING BETWEEN POSTS FOR GATE.
4. PICKET - 18 Ga.
5. (3) HEAVY DUTY HINGES, TYP.
6. GATE LOCK WITH KEY ENTRY AND PANIC BAR EXIT.
7. 4" X 6" STEEL OVERSTRIKE PLATE.
8. EXPANDED METAL BACKING.
9. 1/2" METAL TRIM OVER EXPANDED METAL BACKING.
10. HYDRAULIC CLOSER.
11. FINISH GRADE.
12. 8" X 24" CONCRETE FOOTING, TYP. SLOPE TOP AWAY FROM POST TO PREVENT STANDING WATER.

FINISH:
PAINT ALL METAL WITH TWO COATS SHOP PRIMER AND ONE COAT ENAMEL PAINT, COLOR: BLACK

2 DECORATIVE METAL PEDESTRIAN GATE - 6'-0" HEIGHT

1/2" = 1'-0" R-21053-03

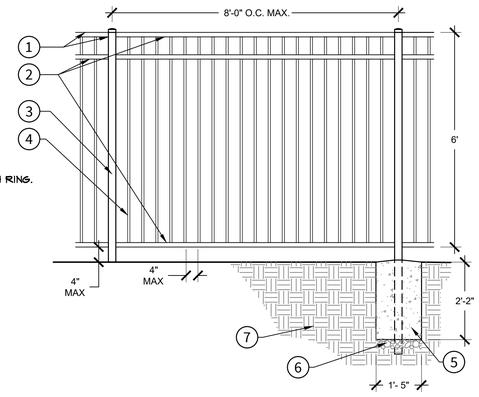


1. WELDED PANEL.
2. 2" SQ. RAILS-16 GA.
3. 2" SQ. POST-16 GA. WITH CAP. PLACE POSTS 8'-0" O.C. MAXIMUM.
4. 3/4" SQ. PICKET-18 GA. WITYH RING.
5. MIN. 12" X 24" CONCRETE FOOTING,TYP.
6. 6"X8"X16" CMU, D225 SPLIT FACE / SMOOTH FACE, WITH MATCHING SPLIT PAVER CAP.
7. FINISH GRADE.

FINISH:
PAINT ALL METAL WITH TWO COATS SHOP PRIMER AND ONE COAT ENAMEL PAINT. COLOR BLACK.

5 36" DECORATIVE METAL FENCE ON 36" CMU WALL

1/2" = 1'-0" R-21053-10

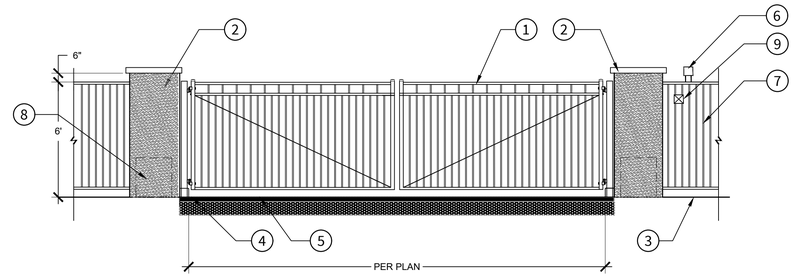


1. WELDED PANEL.
2. 2" SQ. RAILS - 14 GA.
3. 3" SQ. POST - 12 GA. WITH CAP. PLACE POSTS 8' O.C. MAXIMUM.
4. 1" SQ. PICKET - 14 GA.
5. 18" X 26" CONCRETE FOOTING, TYP. SLOPE TOP AWAY FROM POST TO PREVENT STANDING WATER, TYP.
6. AGGREGATE BASE, COMPACTED.
7. COMPACTED SUBGRADE TO 90% REL. DENSITY.

FINISH:
PAINT ALL METAL WITH TWO COATS SHOP PRIMER AND ONE COAT ENAMEL PAINT. COLOR: BLACK.

3 OPEN METAL FENCE

1/2" = 1'-0" R-21053-01



GATE FABRICATION NOTES:
1. CONTRACTOR TO PROVIDE SHOP DRAWINGS AND SPECIFICATIONS FOR TYPE AND GRADE OF ALL STEEL TO OWNER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
2. ALL WELDS SHALL BE WIRE BRUSHED, DE-BURRED, GROUND SMOOTH, AND PAINTED. GRIND ALL SQUARE WELDS OCCURRING ON FLAT STOCK.
3. ALL PIECES TO BE WELDED ALL AROUND.

FINISH:
PAINT ALL METAL WITH TWO COATS SHOP PRIMER AND ONE COAT ENAMEL PAINT.

1. TUBULAR STEEL GATES, TYP. OF (2). MINIMUM 1-1/2" SQ. FRAMING WITH 1" SQ. PICKETS. FINISH: BLACK.
2. PILASTER - SEE DETAIL.
3. ADJACENT PLANTER. SEE PLANS.
4. CONCRETE CURB.
5. STREET FINISH SURFACE. SEE CIVIL PLANS FOR SECTION.
6. PROVIDE OPTICOM ELECTRONIC OVER RIDE SWITCH PER FIRE DEPARTMENT REQUIREMENTS.
7. ADJACENT METAL FENCE. SEE PLANS.
8. SWING GATE MOTOR. DOOR KING MODEL #9150 OR EQUAL. (BEHIND PILASTER.
9. KNOX BOX WITH KEYS BY KNOX COMPANY. PROVIDE AND INSTALL PER FIRE DEPARTMENT REQUIREMENTS.

1 ENTRY GATE - SWING

1/4" = 1'-0" R-21053-06

REGISTERED LANDSCAPE ARCHITECT
KEVIN C. LEAMY
No. 4965
Signature
12/31/22
XX/XX/XX
Date
STATE OF CALIFORNIA

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Preliminary Details PL3

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		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
General Conditions					
1.	The approved entitlement is for a Major Design Review for The Residences at Capital Center as described in the City Council staff report dated November 21, 2022 and attached project plans (Exhibit A) with the conditions herein, for project number PLND-1221-0024.	Project Description	On-Going	Planning	
2.	The Applicant shall hold harmless the City, its Council Members, officers, agents, employees, and representatives from liability for any award, damages, costs and fees incurred by the City and/or awarded to any plaintiff in an action challenging the validity of this permit or any environmental or other documentation related to approval of this permit. Applicant further agrees to provide a defense for the City in any such action.	General	On-Going	Planning	
3.	Any future alteration to the buildings, change in use, intensification of the site, or modification to the parking and landscaped area must be reviewed by the City to ensure compliance with all local, state, and federal regulations. Minor modifications that are found to be in substantial conformance with the approved plans such as colors, plant materials, or minor lot line adjustments, may be approved administratively. Major modifications shall be approved by the applicable decision-making body.	General	On-Going	Planning/ Building /Public Works	
4.	Applicant/Developer shall not carry a negative account balance with the City for the processing of the project. If a negative account balance occurs, it will be the developer's responsibility to pay the balance due, in order to avoid delays in the processing of future permits or recordation of maps. Please email the Finance Department at billings@cityofranchocordova.org for the status of your account with the City.	General	On-Going	Finance	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
5.	Applicant shall be responsible for all damage to City streets associated with construction of the project and shall repair any damage as soon as possible.	City Street Repair	On-Going	Public Works	
6.	SASD Design Standards and Specifications require minimum 6-inch lower laterals for commercial and industrial buildings. Demolishing of the building may require replacing the existing 4-inch lower lateral to a 6-inch lower lateral.	Design Standards	On-Going	Sacramento Area Sewer District	
7.	Construction of a grease trap or sand oil separator may be required. The Applicant must verify with the applicable jurisdiction's building department.	Grease Trap	On-Going	Sacramento Area Sewer District	
8.	If any proposed garbage enclosure will contain a drain to the sewer, it must be covered.	Garbage Enclosure	On-Going	Sacramento Area Sewer District	
9.	SMUD has existing overhead 69/12kV facilities along International Drive that will need to remain. The Applicant shall be responsible for maintaining all CalOSHA and State of California Public Utilities Commission General Order No. 95 safety clearances during construction and upon building completion. If the required clearances cannot be maintained, the Applicant shall be responsible for the cost of relocation.	Existing Overhead Facilities	On-Going	SMUD	
10.	SMUD has existing underground 12kV facilities on Crawford Drive and along Kilgore Road that will need to remain. The Applicant shall be responsible for maintain all CalOSHA and State of California Public Utilities Commission General Order No. 128 safety clearances during construction and upon building completion. If the required clearances cannot be maintained, the Applicant shall be responsible for the cost of relocation.	Existing Underground Facilities	On-Going	SMUD	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
11.	The Applicant shall disclose existing or proposed 69kV electrical facilities to future and/or potential owners located along Folsom South Canal and International Drive.	Owner Disclosure	On-Going	SMUD	
12.	SMUD has existing 69kV pole line going north from International Drive along west side of the Folsom south canal that will need to remain. They are in rights that also need to remain.	SMUD Pole Line	On-Going	SMUD	
13.	SMUD reserves the right to use any portion of its easements on or adjacent to the subject property that it reasonably needs and shall not be responsible for any damages to the developed property with said easement that unreasonably interferes with those needs.	SMUD Easements	On-Going	SMUD	
14.	Future development of the commercial space at the northwest corner of the project, shall acquire a Design Review Entitlement (and/or any other applicable entitlement) prior to construction and operation, once a tenant has been determined. The Design Review Entitlement that is to be required shall be determined by the applicability sections of section 23.140 Minor Design Review and section 23.141 Major Design Review.	Additional Entitlements	On-Going	Planning	
15.	All outdoor lighting shall be constructed and operate within the required standards of Chapter 23.725.060 of the Rancho Cordova Municipal Code.	Outdoor Lighting	On-Going	Planning	
16.	The Design Review Entitlement is valid for three years from the date of City Council approval, unless an extension of time is subsequently approved or substantial construction of the permitted use has commenced and is diligently pursued to completion; clear documentation is provided to establish that the permit holder has made a good faith effort to commence work upon the use; the permitted use has clearly been established; actual occupancy of an existing building or land occurs under the terms of the permitted use.	Permit Expiration	Three years, commencing with the date of approval.	Planning	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
17.	Roof Mounted Mechanical Equipment must be screened from view where feasible per Chapter 23.731 of the RCMC	Roof Screening	On-Going	Planning	
Prior to Approval of Improvement Plans					
18.	Provide Fire Access Agreement between all parcels connected to and served by fire access. Fire access Agreement shall be recorded with the Public Recorders Office having jurisdiction.	Fire Access Agreement	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	
19.	Provide Fire Access Roadway Maintenance Agreement (RMA) between all parcels connected to and served by the fire access roadway. The fire access Roadway Maintenance Agreement shall be recorded with the Public Records Office having jurisdiction. The roadway maintenance agreement shall include the following: a) Provisions for the necessary repair and maintenance of the roadway surface. b) Removal of vegetation overgrowing the roadway and infringing on the roadway clear vertical height of thirteen feet six inches (13' 6") or width of twenty feet (20'). c) Provisions for the maintenance, repair, and/or replacement of NO PARKING – FIRE LANE signage or striping. d) Provision for the necessary repair and maintenance of vehicle and pedestrian access gates and opening systems.	Fire Access Roadway Maintenance Agreement	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	
20.	Any necessary future SMUD facilities located on the Applicant's property shall require a dedicated SMUD easement. This will be determined prior to SMUD performing work on the Applicant's property.	SMUD Easements	Prior to Approval of Improvement Plans	SMUD	
21.	In the event the City requires an Irrevocable Offer of Dedication (IOD) for future roadway improvements, the Applicant shall dedicate a 12.5-foot public utility easement (PUE) for overhead and/or underground facilities and appurtenances adjacent to the City's IOD.	Public Utility Easement	Prior to Approval of Improvement Plans	SMUD	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
22.	The Applicant shall dedicate a 12.5-foot public utility easement for overhead and/or underground facilities and appurtenances adjacent to all public street rights-of-ways.	Utility Easement	Prior to Approval of Improvement Plans	SMUD	
23.	The Applicant shall dedicate any private drive, ingress and egress easement, (and 10-feet adjacent thereto) as a public utility easement for (overhead and) underground facilities and appurtenances. All access roads shall meet minimum SMUD requirements for access roads.	Access Roads	Prior to Approval of Improvement Plans	SMUD	
24.	Pay in-lieu and park development fees to Cordova Recreation and Parks District in accordance with City Municipal Code 22.170.020 with the fee normalized based on current appraised value. Provide an appraisal per City Municipal Code 22.40.045.	In-lieu Fee	Prior to recordation of any final map or lot line adjustments. If no map or lot line adjustment is made, then prior to issuance of first building permit	Community Development /CRPD	
25.	Developer shall annex the real property within the Project to Cordova Recreation & Park District's Community Facilities District NO. 01-01 Villages at Zinfandel ("CFD") formed under the provisions of the Mello-Roos Community Facilities Act of 1982 (Government Code Section 53311, et seq.) for the purpose of funding developments' fair share of the cost of maintaining the Villages of Zinfandel trail system, neighborhood parks, adjacent street frontage Improvements, and the Community Parks utilized by the projects residents. All costs associated with annexation into the CFD shall be borne by the Property Owner/Applicant.	Annexation	Prior to recordation of any final map or lot line adjustments. If no map or lot line adjustment is made, then prior to issuance of building permit.	City Public Works / CRPD	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
26.	The District shall provide, and the developer shall deliver to City Public Works a certificate from the Cordova Recreation and Parks District stating that all fees as required by the District have been paid.	Fee Certificate	Prior to Recordation of each final map or lot line adjustment. If no map or lot line adjustment is made, then prior to issuance of first building permit	City Public Works / CRPD	
27.	Show the design for a fire access roadway of not less than 20-feet of unobstructed width, 13-feet, 6-inches of vertical clearance, and turning radii of 25 feet inside and 50 feet outside dimension on the improvement plans. The access roadway shall extend within 150 feet of all portions of the exterior walls of the first story of any proposed building. ***The use of turf-block or grass-crete or similar alternate road surfaces is not approved for installation in fire apparatus access roadways.***	Fire Access Roadway	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	
28.	Show the design for a minimum of 2 remote fire access roadways. Remote fire access roadways shall be spaces a distance apart that is no less than ½ the diagonal measurement of the overall project site.	Fire Access Roadway	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	
29.	Show the design for aerial apparatus access. Aerial apparatus access shall conform to Sacramento Metro Fire Districts, Fire Prevention Standard #3.	Aerial Apparatus Access	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	
30.	Show the design for an approved fire apparatus turnaround. The fire apparatus turnaround shall conform to Sacramento Metro Fire Districts, Fire Prevention Standard #3. The fire access turn-around shall be located within 50 feet of the end of the access roadway.	Aerial Apparatus Turnaround	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
31.	Show on the plan how Fire Lanes will be marked. Fire Lane identification shall be provided along the required fire access roadway. Fire Lane identification shall be in accordance with the Sacramento Metro Fire Districts Fire Prevention Standard #3 and the California Vehicle Code. Vehicle parking is prohibited on any street less than 28 feet in width. Vehicle parking is permitted on both sides of streets 36 feet or more in width. Roadway widths shall be measured between the gutter-line or edge of pavement on opposite sides of the road. Identification of fire apparatus access roadways may be required on private roads.	Fire Lanes	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	
32.	Provide a note on the plan that reads, “Fire apparatus access roads shall be designed and maintained to support the imposed live load of 80,000 pounds, with a maximum axle load of 31,000 pounds, and meet Public Works Standards for roadways. A report, prepared by a registered geotechnical engineer, verifying the ability of the road to bear the required minimum weight, shall be submitted with any plan indicating construction of roadway. Verification of constructed roadway shall be provided by a registered geotechnical engineer prior to final of the project.”	Fire Apparatus Access Roads	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	
33.	Show the location of the required fire hydrants for this project on the improvement plans. Approved fire hydrants capable of providing the required fire flow for the protection of any and all structures shall be located along the fire apparatus access roadway. The required fire hydrants shall be installed and operational prior to any construction or on-site storage of combustible materials. The minimum required fire flow for the protection of commercial developments is 1,500 gallons per minute (gpm) at a pressure of 20 pounds per square inch (psi) for a two-hour duration.	Fire Hydrants	Prior to Approval of Improvement Plans	Sacramento Metro Fire District	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
34.	**Drainage Study:** Applicant shall prepare and submit a project specific drainage study that includes but is not limited to: a pre- and post-project drainage analysis of the project impacts, identification of offsite project impacts or required offsite improvements, and identification of proposed connections to the City's Storm Drainage System with adequate supporting calculations. The drainage study shall conform to the requirements of the Sacramento City/County Drainage Manual (Volume 2), County of Sacramento Improvement Standards (Section 9), and all other applicable City standards. The drainage study must be developed and stamped by a Professional Engineer and determined by the City to be accurate and adequate.	Drainage Study	Prior to Approval of Improvement Plans	Public Works	
35.	**Stormwater Quality- Post Construction** The improvement plans shall incorporate all applicable post construction stormwater quality measures; including source control (loading docks, waste management areas), treatment control, hydromodification management, low impact development measures (including but not limited to disconnected roof drains, amended soils, depressed landscaping, river friendly landscaping, etc.), and full capture trash control measures into the site improvement plans in conformance with the most recent version of the *Stormwater Quality Design Manual for the Sacramento Region*. The applicant shall prepare and submit a Post-Construction Stormwater Quality Control Plan that includes details and sizing calculations of all the proposed post construction stormwater quality measures. In addition, a maintenance covenant is required for all proposed post construction stormwater quality measures, as detailed in Appendix B of the *Stormwater Quality Design Manual for the Sacramento Region.*	Stormwater Quality	Prior to Approval of Improvement Plans	Public Works	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
36.	**Stormwater Quality– During Construction:** SWPPP – the applicant shall prepare a Storm Water Pollution Prevention Plan (SWPPP) to be executed through all phases of grading and project construction. The SWPPP shall incorporate Best Management Practices (BMPs) to ensure that potential water quality impacts during construction phases are minimized. These measures shall be consistent with the City's Improvement Standards and Land Grading and Erosion Control Ordinance. During construction, the applicant shall implement BMPs in accordance with the SWPPP and the City's Improvement Standards. **Advisory Condition: Construction General Permit** The project applicant shall file a Notice of Intent (NOI) to obtain coverage under the *National Pollutant Discharge Elimination System (NPDES) General Permit For Storm Water Discharges Associated With Construction And Land Disturbance Activities* (Construction General Permit). Permits are issued by the State Water Resources Control Board.	Stormwater Quality	Prior to Approval of Improvement Plans	Public Works	
37.	The SWPPP for the site shall include a contingency plan for the implementation of a process to remove fine clay sediments prior to discharge to the City of Rancho Cordova's storm drain system and/or Waters of the State (e.g., creeks, rivers) to the satisfaction of the City of Rancho Cordova. A polymer treatment system or comparable process shall be incorporated in the erosion and sediment control plan as part of the improvement plans submittal. This system shall be implemented by qualified professionals with training and proven experience in this field.	SWPPP Mitigation	Prior to Approval of Improvement Plans	Public Works	
38.	**Drainage System Design:** The applicant shall submit and obtain City approval of plans and specifications for the construction of public improvements and all grading. The drainage system shall be designed in accordance	Drainage System	Prior to Approval of Improvement Plans	Public Works	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
	with the approved Drainage Study to accommodate runoff from the ultimate development and shall meet the City of Rancho Cordova's Improvement Standards, construction standards, and Floodplain Management Ordinances in effect at the time of improvement plans approval.				
39.	All development within the City must comply with the City of Rancho Cordova's Floodplain Management Ordinance. All new structures shall be protected from the 100-year (1 percent) flood event. Certified pad elevations (certified by a registered Civil Engineer or licensed Land Surveyor) shall be set at least one and two tenths foot (1.2') above all sources of 100-year flooding (see Section 9-1 of improvement standards). The overland release path must be shown on the improvement plans and the hydraulic computation must be provided to estimate the flow depths along the overland release paths. The calculations must be in conformance with Section 9-15 of the Improvement Standards.	Floodplain Management	Prior to Approval of Improvement Plans	Public Works	
40.	Provide a permanent concrete stamp, or other permanently applied message to the satisfaction of the City not including paint, which reads "No Dumping-Flows to Creek" or other approved message at each storm drain inlet.	Concrete Stamps	Prior to Approval of Improvement Plans	Public Works	
41.	All storm drain facilities within private lots shall be privately maintained and shall be clearly labeled as "private" in the improvement plans.	Private Lot Drains	Prior to Approval of Improvement Plans	Public Works	
42.	**Fees:** Pay the drainage impact fees to the satisfaction of the City of Rancho Cordova's Public Works Department.	Drainage Impact Fees	Prior to Approval of Improvement Plans	Public Works	
43.	Provide a level of street light illumination equivalent to that required for public streets for the entire portion of the private road system	Light Illumination	Prior to Approval of Improvement	Public Works	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
			Plans		
44.	Enter into a frontage agreement and bond for construction of public improvements per the approved Public Works plans to the satisfaction of the Public Works Department.	Frontage Agreement	Prior to Approval of Improvement Plans	Public Works	
45.	A final landscape plan shall be submitted in conjunction with improvement plan and or building permit submittal and approved by the planning and public works departments prior to issuance of permits and/or any installation of landscape materials RCMC 23.716.020. The final landscape planting and irrigation plan shall be prepared by a registered licensed landscape architect and include the following items per RCMC 22.180.060: • Planting plan to scale that indicate slope • Irrigation Plan • Soils Test • Water Use Calculations • Irrigation Schedule • Permeability test for LID facilities' locations • Soil media specifications (LID features)	Landscape Plan	Prior to Approval of Improvement Plans	Public Works	
46.	Signage, striping, and similar measures shall be designed where needed to the satisfaction of the City Engineer. Locations will be determined at time of improvement plan submittal.	Design	Prior to approval of Improvement Plans	Public Works	
47.	All landscape strips, medians, etc. that contain trees shall be designed to include continuous root barriers. Trees shall be appropriately sized for their proposed planters.	Root Barriers	Prior to Approval of Improvement Plans	Public Works	
48.	To obtain sewer service, construction of SASD sewer infrastructure will be required. Current SASD Standards and Specifications apply to any offsite or onsite public sewer construction or modification. These improvements must be shown on the plans.	Sewer Infrastructure	Prior to Approval of Improvement Plans	Sacramento Area Sewer District	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
	Field modifications to new or existing precast manhole bases are not allowed.				
49.	SASD requires each building on each lot with a sewage source to have a separate connection to SASD's sewer system. If there is more than one building in any single parcel and the parcel is not proposed for split, then each building on that parcel must have a separate connection to a private onsite sewer line or a separate connection to the SASD public sewer line. These improvements must be shown on the plans.	Sewer Connections	Prior to Approval of Improvement Plans	Sacramento Area Sewer District	
50.	Alignment of all main lines and structures must provide a minimum of 1-foot vertical clearance and 5 feet horizontal clearance from all other utilities and improvements. Sewer is to be located a minimum of 10-feet (measured horizontally) from any structure or footing. Show public sanitary sewer and water supply facilities in accordance with the Health and Safety Code.	Clearance	Prior to Approval of Improvement Plans	Sacramento Area Sewer District	
51.	A Lower Lateral may not connect to the existing interceptor on International Drive	Lower Lateral Connections	Prior to Approval of Improvement Plans	Sacramento Area Sewer District	
52.	A public or private sewer easement will be required to service Parcel 4. All public sewer easements will be dedicated to SASD in a form approved by the District Engineer. All public sewer easements will be at least 20 feet in width and will require continuous access for installation and maintenance. SASD will only provide maintenance in public rights-of-ways and SASD dedicated sewer easements. No awning or overhang may encroach on the easement area. At minimum, an all-weather access road must be provided to all manholes.	Sewer Easement	Prior to Approval of Improvement Plans	Sacramento Area Sewer District	
53.	The Applicant shall not place any building foundations within 5-feet of any SMUD trench to maintain adequate trench integrity. The Applicant shall verify specific clearance requirements for other	Clearance Requirements	Prior to Approval of Improvement	SMUD	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
	utilities (e.g., Gas, Telephone, etc.).		Plans		
54.	Applicant will include phasing of development and order of planned construction upon submitting a new service application to SMUD for the initial subdivision phase(s) and/or road improvement backbone project(s).	Phasing	Prior to Approval of Improvement Plans	SMUD	
55.	Development should be phased to start adjacent to existing electrical infrastructure to minimize temporary overhead and/or underground electrical facilities.	Phasing	Prior to Approval of Improvement Plans	SMUD	
56.	Prior to any ground disturbance or issuance of grading or improvement plans, the applicant shall obtain a Covered Activities Authorization permit in compliance with the South Sacramento Habitat Conservation Plan (SSHCP).	SSHCP	Prior to Issuance of grading or improvement plans	Planning	
Prior to Issuance of Building Permit					
57.	Applicant shall complete improvement plans to the satisfaction of the Public Works Department. Improvement plans shall include, but shall not be limited to: • All onsite civil improvements • Civil plan shall include an ADA access plan • On Kilgore Road property frontage, remove and replace all sidewalk, curb and gutter. Replace to meet current ADA requirements and City Standards. Any damages to the existing driveway and curb ramp along Crawford Drive shall be repaired, which include and shall not be limited to curb, gutter, and sidewalk. Any obstructions to the sidewalk shall be relocated behind back of walk. • Remove and replace existing rolled curb and gutter along property frontage of Kilgore Road with Type 2 curb & gutter per Sacramento County Standard Drawing 4-30.	Improvement Plans	Prior to Issuance of Building Permits	Public Works	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
	• Install a HAWK signal or equivalent crossing Kilgore Road, near the proposed main entrance. Ultimate pedestrian crossing type and location shall be to the satisfaction of the Public Works Department. • Replacement of damaged sidewalk and curb and gutter along property frontage of International Drive to the satisfaction of the Public Works Department. Sidewalk panels shall be replaced to the nearest joint • Public improvement plans shall clearly delineate all transitions to existing improvements • Utility laterals • All improvements to be designed and constructed to the satisfaction of the Public Works Department. • Compete installation of all frontage improvements (those improvements in or adjacent to Kilgore Road or International Drive noted above including, but not limited to sidewalk improvements, curb and gutter, HAWK signal, etc.) shown on the improvement plan to satisfaction of the City prior to first occupancy in any phase. • Complete onsite improvements shown on the improvement plans within onsite phase prior to first occupancy within that phase. Phasing of onsite improvements shall be to the satisfaction of the City.				
58.	Internal pedestrian access: Developer shall provide location for a stub from internal pedestrian access to the east property line of the project to accommodate possible future connection to Folsom South Canal trail. External access to Folsom South Canal: Within the first twelve months from the date of project approval by City Council, the developer will use commercially reasonable efforts to obtain the	Access	Prior to exceeding 50% occupancy of residential units	Public Works	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
	necessary approvals from the US Bureau of Reclamation (USBOR) to construct an at-grade pedestrian/bicycle connection from the project to the Folsom South Canal bike trail. The connection will be gated at the project boundary and will only be for use by residents of the project. If successful in obtaining the necessary approvals during that time period, or a reasonable extension thereof, the developer shall complete construction of the connection prior to issuance of certificate of occupancies for more than 50% of the residential units in the project. If developer is not able to obtain permits from USBOR within the timeframe noted above, no further action will be required by the developer.				
59.	Property Owner/Applicant shall participate in or provide a funding mechanism for maintenance services for the project's stormwater drainage and flood protection system. This may be accomplished through annexation to the City's Stormwater Utility Fee District, or other financial mechanism as may be proposed and provided by the Property Owner for the same purpose of providing a funding mechanism to fund the operation and maintenance of the Project's stormwater drainage and flood protection system. Costs associated with the annexation shall be borne by the Property Owner/Applicant through payment of the annexation costs in the amount of $7,000 per annexation. Contact Elizabeth Sparkman at (916) 851-8714 with regard to the process to satisfy this condition of approval.	Stormwater Drainage and Flood Protection System	The annexation shall occur prior to the recordation of any small lot final map. Or issuance of the first building permit, whichever occurs first. The annual fee commences when a building permit is issued.	Public Works	
60.	Property Owner/Applicant shall participate in or provide a funding mechanism for maintenance services for the fair share of existing and all new public improvements associated with the project including, but not limited to, streets, bridges/culverts, traffic signals, traffic signs, striping and legends, ITS operations, street lights and	Existing and New Public Improvements	Prior to Issuance of Building Permits	Public Works	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
	safety lights, and public frontage and median landscape improvements. This may be accomplished through annexation to the City's Communities Facilities District No. 2008-1 (Street Lighting and Road Maintenance). All costs associated with the annexation shall be borne by the Property Owner/Applicant through payment of the annexation costs of the CFD annexation in the amount of $5,000 per annexation. Contact Elizabeth Sparkman at (916) 851-8714 with regard to the process to satisfy this condition of approval.				
61.	Property Owner/Applicant shall participate in the provision of funding to provide transit-related services by voting to approve a special tax. The tax shall be the annual amount (with appropriate annual inflation adjustment) as established at the time of voting by the City Council. The election to provide for the tax shall be completed prior to the issuance of building permits. The property owner shall be responsible for paying all costs associated with holding the election. The tax shall be due at the time specified in the ordinance imposing the tax. In addition, the Owner of the property shall hold a deed assessment in the form of Conditions, Covenants & Restrictions against the property, or other form as shall be approved by the City, which assessment will take effect in the event the special tax described in this Condition of Approval is reduced or repealed. Contact: Elizabeth Sparkman at (916) 851-8714 as there may be a 1-2 month lead time to satisfy this condition.	Transit-related Services	Prior to Issuance of Building Permits	Public Works	
62.	The Landowner shall support the annexation of the Project into the Police Services CFD and cover Landowner's fair-share costs of the CFD annexation, not to exceed $5,000 for the Property. City agrees that the CFD will provide that on lands designated for all residential land use categories, the base year Police Special Tax shall be $450.00 annually per residential dwelling unit, including multi-family units. The special tax imposed by the CFD will be	Police Services	The annexation shall occur prior to the recordation of any small lot final map or issuance of the	Public Works	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
	payable on a parcel within the Property only after a building permit has been issued by City for the construction of a building on that particular parcel, and there will be no undeveloped land tax imposed by the CFD. The CFD shall further provide that on each July 1 commencing July 1, 2012, the Police Special Tax shall be escalated by the increase, if any, in the City CPI Index. However, in no event shall the tax per parcel for any fiscal year be less than the amount established for the prior fiscal year. The CFD shall specify that the Police Special Tax shall commence being payable annually following the issuance of a building permit for each parcel subject to the Police Special Tax.		first building permit, whichever occurs first The annual fee commences when a building permit is issued		
63.	The Owner must contact Permit Services Unit at PermitServices@sacsewer.com or by phone at (916) 876-6100 to determine if sewer impact fees are due. Fees are to be paid prior to the issuance of building permits.	Sewer Impact Fees	Prior to Issuance of Building Permits	Sacramento Area Sewer District	
64.	All projects are subject to Sacramento Metro Air District rules and regulations in effect at the time of construction.	Construction Regulations	Prior to Issuance of Building Permits	Sacramento Metro Air District	
65.	The Applicant shall meet the following: Civil Site Plans and Architectural Plans shall be submitted and approved prior to Final Building Permit being issued. Fire Sprinkler and Fire Alarm plan shall be submitted prior to Final Building Permit being issued. Please note: The Sacramento Metro Fire District **does not** allow deferred submittals for Fire Sprinkler or Fire Alarm plans.	Plan Submittal	Prior to Issuance of Building Permits	Sacramento Metro Fire District	
66.	Where a bridge or elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO HB-17.	Bridge Construction	Prior to Issuance of Building Permits	Sacramento Metro Fire District	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
67.	Structural setbacks less than 14-feet shall require the Applicant to conduct a pre-engineering meeting with all utilities to ensure property clearances are maintained.	Setbacks	Prior to Issuance of Building Permit	SMUD	
68.	In the event the Applicant requires the relocation or removal of existing SMUD facilities on or adjacent to the subject property, the Applicant shall coordinate with SMUD. The Applicant shall be responsible for the cost of relocation or removal.	SMUD Facilities	Prior to Issuance of Building Permit	SMUD	
69.	The Applicant shall comply with SMUD siting requirements (e.g., panel size/location, clearances from SMUD equipment, transformer location, service conductors). Information regarding SMUD siting requirements can be found at: https://www.smud.org/en/Business-Solutions-and-Rebates/Design-and-Construction-Services	Siting Requirements	Prior to Issuance of Building Permit	SMUD	
Prior to Final Inspection					
70.	During and upon completion of the installation of the landscaping for the project, the project landscape architect/designer shall certify that the installed landscape complies with the approved plans. Certification shall be accomplished by completion of site visits at key installation milestones. Key milestones at a minimum shall include: rough grade, soil amendment verification, Plant material inspection, irrigation coverage test underdrain installation (as applicable) and final installation. Certification shall include signed site observation reports, photographs and documentation verifying implementation of soil report recommendations. Failure to submit complete and accurate documentation to the Planning Department will delay final approval/occupancy of the project.	Landscaping Certification	Prior to Final building inspection of the first unit	Public Works	
71.	Upon completion of the installation of the landscaping, the designer shall certify that the landscape complies with all city water conserving landscape requirements. Certification shall be accomplished by completion of a certificate of compliance on a form approved by the director of the city public works department.	Water Conservation Landscape	Prior to Final Building Inspection	Public Works	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
	Failure to submit a complete and accurate certificate of compliance will delay final approval of the project and/or discontinue water service per RCMC 22.180.090. Upon receipt of the certificate of compliance and site inspection from City staff, the landscaping performance bond will be released.				
72.	Install public and onsite improvements per the approved Public Works plans and to the satisfaction of the Public Works Department. Prior to acceptance of the improvements, record drawings of grading and improvement plans (1 full size and 1 half size hard copy), as well as a compact disc containing said plans in AutoCAD and pdf format, and a GIS Shape file shall be submitted and approved by the Public Works Department.	Public and On-site Improvements	Prior to Final Inspection of the First Unit	Public Works	
Prior to Granting Final Occupancy					
73.	Applicant/Owner/Developer shall repair and replace all right-of-way damages caused by the construction of the building to the satisfaction of the Public Works Department. Damages include, but are not limited to: pavement, sidewalks, curbs, and gutters.	Right of Way Replacement	Prior to Occupancy	Public Works	
74.	Approved numbers or addresses shall be placed on all new or existing buildings in such a position as to be easily read from the street or road fronting the property. The minimum size of the numbers shall not be less than six (6) inches and shall be mounted immediately adjacent to a light source and shall also contrast with their background.	Addressing	Prior to Final Occupancy	Sacramento Metro Fire District	
Advisory Conditions					
75.	Any gates shall be installed in accordance with The County Emergency Access and Barriers Standard. Plan submittal is required prior to installation.	Gates	Advisory	Sacramento Metro Fire	

		Category	Timing/ Implementation	Enforcement/ Monitoring	Verification (date & Signature)
76.	The Sacramento Metropolitan Fire Districts requirements are not to be construed as abrogating more restrictive requirements by other agencies having jurisdiction. Final acceptance is subject to field approval and completion of required tests.	SMFD Requirements	Advisory	Sacramento Metro Fire	

MITIGATION MONITORING AND REPORTING PROGRAM

INTRODUCTION

CEQA and the State CEQA Guidelines (PRC Section 21081.6 and State CEQA Guidelines Sections 15091[d] and 15097) require public agencies "to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval to mitigate or avoid significant effects on the environment." A Mitigation Monitoring and Reporting Program (MMRP) is required for the proposed project because the Initial Study identifies potential significant adverse impacts related to the project implementation, and mitigation measure have been identified to reduce those impacts. Adoption of the MMRP would occur along with approval of the proposed project.

PURPOSE OF MITIGATION MONITORING AND REPORTING PROGRAM

This MMRP has been prepared to ensure that all required mitigation measures are implemented and completed in a satisfactory manner prior to implementation of the proposed ordinance. The attached table has been prepared to assist the responsible parties in implementing the mitigation measures. The table identifies the mitigation measures, responsibility, mitigation timing, and provides space to confirm implementation of the mitigation measures. The numbering of mitigation measures follows the numbering sequence found in the Initial Study. Mitigation measures that are referenced more than once in the Initial Study are not duplicated in the MMRP table.

ROLES AND RESPONSIBILITIES

As specified herein, the project applicant or its designee is responsible for taking all actions necessary to implement the mitigation measures and for demonstrating that the action has been successfully completed. The City of Rancho Cordova shall confirm implementation of all measures under its jurisdiction according to the specifications provided for each measure.

Inquiries should be directed to:

Nick Sosa, Associate Planner
City of Rancho Cordova Planning Division
2729 Prospect Park Drive
Rancho Cordova, CA 95670

E-mail comments may be addressed to: nsosa@cityofranchocordova.org

The location of this information is:

City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

MITIGATION MONITORING AND REPORTING PROGRAM TABLE

The categories identified in the attached MMRP table are described below.

- Mitigation Measure – This column provides the verbatim text of the adopted mitigation measure.
- Implementation Responsibility – This column identifies the party responsible for implementing the mitigation measure.
- Timing – This column identifies the time frame in which the mitigation will be implemented.
- Verification – This column is to be dated and signed by the person (either project manager or his/her designee) responsible for verifying compliance with the requirements of the mitigation measure.

Mitigation Monitoring and Reporting Program

Mitigation Measures	Implementation Responsibility	Timing	Verification
Biological Resources			
Mitigation Measure 3.4-1: Obtain coverage for the project under the SSHCP In addition to payment of development fees in accordance with the SSHCP, the Project Applicant shall implement all applicable Avoidance and Minimization Measures codified in the SSHCP at the time permits are obtained. Avoidance and Minimization Measures currently provided in the SSHCP are included in Appendix C.	Project Applicant and Construction Contractors	Throughout construction, as determined at the time permits are obtained	
Cultural and Tribal Cultural Resources			
Mitigation Measure 3.5-1: Protection of Known and Unknown Archaeological Resources The following shall be implemented during any ground-disturbing activities associated with project construction: ▶ In the event that unknown buried cultural deposits (e.g., prehistoric stone tools, milling stones, historic glass bottles, foundations, cellars, privy pits) are encountered during project construction, all ground-disturbing activity within 50 feet of the resources shall be halted and a qualified professional archaeologist (36 Code of Federal Regulations [CFR] 61) and appropriate Native American tribal representative shall be notified immediately and retained to assess the significance of the find. Construction activities could continue in other areas. ▶ If the find is determined to be significant by the qualified archaeologist or Native American tribe (i.e., because it is determined to constitute either a historical resource or a unique archaeological resource), the archaeologist shall develop appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include but would not necessarily be limited to preservation in place, archival research, subsurface testing, or contiguous block unit excavation and data recovery. ▶ If the qualified archaeologist determines the archaeological material to be Native American in nature, the City of Rancho Cordova shall contact the culturally affiliated Native American tribe for their input on the preferred treatment of the find.	Project Applicant and Construction Contractors	during any ground-disturbing activities	

Mitigation Measures	Implementation Responsibility	Timing	Verification
Tribal Cultural Resources			
Mitigation Measure 3.18-1: Retain a Native American Tribal Monitor The Applicant shall contact Wilton Rancheria at least 30 days prior to ground disturbance to retain a Native American Tribal monitor. The Tribal monitor shall be approved by the Wilton Rancheria and listed under the NAHC's Tribal Contact list for the Project area. A minimum of seven days prior to ground disturbance, the Applicant shall notify Wilton Rancheria of the impending groundwork. Construction activities shall proceed if no response is received within 48 hours. The Tribal monitor shall only be present onsite during the construction phases that involve ground disturbing activities. The Tribal monitor shall complete daily monitoring logs that describe each day's activities, including construction activities, locations, soil, and any cultural materials identified. The onsite monitoring shall end when the grading and excavation activities are completed, or when the Tribal representatives and monitor have indicated that the site has a low potential for impacting tribal cultural resources. The Applicant shall compensate the Tribal monitor for services.	Project Applicant	30 days prior to ground disturbance	

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MEMORANDUM

ITEM 12.1.

DATE: November 21, 2022

TO: Honorable Mayor and Council Members

FROM: Amanda Norton, Economic Development Manager

SUBJECT: **UPDATE AND DIRECTION ON WORKFORCE RECOVERY PROGRAM NOTICE OF FUNDING AVAILABILITY PROPOSALS RECEIVED**

RECOMMENDATION

Receive update on the proposals received from the Workforce Recovery Program Notice of Funding Availability (NOFA), and funding recommendations for Council consideration. Adopt a resolution for workforce metrics tracking.

RESULT OF RECOMMENDED ACTION

City Council will receive a summary of Workforce Recovery Program proposals with funding recommendations for Council consideration. Upon receiving City Council feedback and recommendations, staff will return on November 21, 2022 with contracts for approval. Adoption of the Resolution would authorize the City Manager to execute a contract with SSL Innovations for an amount not to exceed $370,000 for workforce metrics tracking over three (3) years.

BACKGROUND

The application period for Workforce Recovery Program (Program) NOFA opened on September 26, 2022 and closed on October 21, 2022. Staff received 10 proposals in response to the NOFA. In addition to three city staff, the proposals were reviewed by members from two outside organizations. Each application was reviewed according to the application criteria listed in the NOFA. The proposals received were broad and covered the areas of medical, manufacturing, the trades, full wrap around job placement assistance, and technology. In addition to the 10 proposals that were received in response to the NOFA, the attached PowerPoint includes the previously approved proposal submitted by WellSpace. Per the NOFA, the Workforce Recovery Program was looking for proposals that went beyond basic training. These items can include, but are not limited to, providing a living wage while attending training, providing a direct connection to an employer/employment upon completion, and job placement services beyond training. All programs and staff recommendations will be presented in the attached PowerPoint.

Proposals received are as follows:

Bay Valley Tech : Training in demand digital skills to prepare for entry level positions as digital

designers, digital marketers, project managers, and web developers. 15 paid internships and 6 months of career prep and placement. $271,100 for 50 residents.

Charles A Jones: Manufacturing Training Program including Forklift Operator, Material handling & Logistics, Electro-Mechanical Assembly, Intro to manufacturing, and Welding Fabrication I. Cost includes training, placement bonuses ($200 -$1,500),and transportation stipends ($100/month). $277,529 for 50 residents.

Cyber Proud: Pre-apprenticeship program training in Infrastructure Support or Cyber Security. Employers provide work-based learning experiences, which can include job shadowing, internships, and apprenticeship programs. Candidates are trained in a rigorous online setting. Cost includes $500 stipends at 3 months and 6 months post employment. $184,660 for 20 residents.

DP Global Solutions: Salesforce Administrator 12 week certification program. 6 months of hiring support, mentorship, and coaching. Laptops will also be available for students who may require them. $248,350 for 22 residents

Folsom Cordova Community Partnership: Individual Case Management, JobEx Program, Training Scholarships, Support Services, Comprehensive assessment, Career planning and coaching, Professional networks, training scholarships, and employment Support Services. $379,276 for 90 residents.

General Assembly: Software Engineering Immersive Course, 480 hours of instruction. Program includes a $3,000 living stipend. Career coaching and hiring support.$320,000 for 20 residents.

North State BIA: Case management, Life skills certificate, Community Service experience, Work Ready certificate, Trade related certificates, Training program connections. Training length is dependent on student aptitude and interest. Partnership with local employers and apprenticeship programs for students to directly apply their skills. Varying stipends for clothing, equipment, childcare, and transportation. $271,228 for 50 residents.

Northern California Construction Training: Curriculum for over 22 construction trades including but not limited to tools, equipment, and job site safety certifications. Training length is dependent on student aptitude and interest. Partnership with local employers and apprenticeship programs for students to directly apply their skills. $1,000 placement stipends. $953,260 for 50 residents.

Udacity: Tech Career Incubator with two cohorts: Business Analytics and Digital Marketing. 4 month training program. $428,125 for 125 residents.

Wellspace Health: Medical Assistant Training Program is a six-month paid training program that ushers students from historically vulnerable and racially diverse communities into a healthcare career. All students are employed while completing the training program. $128,000 for 8 residents.

Women in Data: The Path Forward, 5-month program for data analytics with mentorship, resume support, portfolio building and job placement. Receive data analytics certification. 8 Employer partnerships for direct employment or internship for a minimum of 25 students. Laptops will also be made available for students who may require them. $614,400 for 50 residents.

Total amount requested: $4,075,830 for 522 residents
Total Budeget: $1,000,000
Diffrence: $(3,075,830)

Included in the NOFA is the requirement for innovative programs that can incorporate and track the metrics of the Program that has been outlined by the NOFA.

The metrics are as follows:

Milestone/Outcome	**Employment and Training Administration Workforce Development Program**	**Rancho Cordova's Target Goals**
Percent of participants who started the program	92%	100%
Participants completed training	47%	75%
Participants completed the training and obtained a certificate or credential	37%	50%
Participants have entered employment "undefined" (6, 12, and 18 months after program completion)	24%	35%
Participants have entered into "training related" employment (6, 12, and 18 months after program completion)	17%	25%

The secondary metrics that will be required for this workforce program include, but are not limited to: number of apprenticeships or internships received (where applicable), total jobs retained, average salary increase, percentage of participants employed, percentage of participants employed in Rancho Cordova. All job placements/starting wages should be measured against the MIT living wage calculator for the Sacramento, Roseville, Arden Metropolitan Statistical Area (MSA).

The above metrics were provided to provide a data-driven, outcome-based system to showcase the overall success of the Program and be able to modify it as necessary. A lesson from the inaugural year of funding, was to have standardized long-term benchmarking, measurement, and reporting of job placement outcomes for all participants. This can only be navigated through a system where the service providers share a vision, vocabulary, strategies, and outcomes informed by strong data sharing. This is why a shared and agreed-upon data-tracking system proves essential in the long term tracking of our Workforce participants.

Staff recognize that long term data tracking of workforce participants is beyond their current bandwidth, which led them to look to SSL Innovation to provide that service. SSL Innovation will ensure that shared data is accurate and objective, that the data is relevant and meaningful, and that the shared data is accessible and consumable. SSL will create a standardized reporting method for all of the workforce development program training providers through surveys based on the benchmark criteria. They will also be administering outreach to the participants throughout their training, as well as, post program to track long-term placements/ trajectory changes. SSL will then provide an analysis of the data collected as compared to the program benchmarks in order to communicate and report the impact of workforce programming.

This three-year agreement will allow for the tracking of the workforce participants for 18 months post training. The main metrics that will be tracked will be: placement in unsubsidized employment, wage at placement, credential rate, and employment related to credentials. This data will be used to influence the direction of future programming, as well as, success as compared to other regional programs. The three-year agreement would cost $370,000, approx. $123,000 per year.

FISCAL IMPACT AND FUNDING SOURCE

The Workforce Recovery Program will be funded from the American Rescue Plan Act (ARPA). The cost associated with the contract with SSL Innovations would be funded through the Measure R or the American Rescue Plan Act (ARPA) Allocation.

ATTACHMENT(S)

1. Resolution
2. Bay Valley Tech Proposal
3. CAJ -SVMA Proposal
4. Cyber Proud Proposal
5. DP Global Proposal
6. FCCP Proposal
7. General Assembly Proposal
8. NCCT Proposal
9. NSBIAF Proposal
10. SSL Workforce Recovery Reporting Proposal
11. Udacity Proposal
12. Women in Data Proposal
13. Workforce Development NOFA
14. Workforce Development Presentation

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, AUTHORIZING THE CITY MANAGER TO EXECUTE A CONTRACT WITH SSL INNOVATIONS FOR AN AMOUNT NOT TO EXCEED $370,000 OVER THE NEXT 3 YEARS FOR WORKFORCE METRICS TRACKING

WHEREAS, the City of Rancho Cordova (the "City") wishes to contract with SSL Innovations for Workforce Participant Long Term Metrics Tracking services for fiscal year 2022-2025; and

WHEREAS, the City would like to enter into an Agreement (the "Agreement") with SSL Innovations in an amount not to exceed $370,000 to provide Workforce Participant Long Term Metrics Tracking of the residents of Rancho Cordova in the Workforce Recovery Programs; and

WHEREAS, SSL Innovations will create surveys that will standardize and benchmark the data being collected to measure the success of the overall workforce program; and

WHEREAS, SSL Innovations will track workforce training participants for 18 months post program; and

WHEREAS, SSL Innovations will ensure that shared data is accurate and objective, that the data is relevant and meaningful, and that the shared data is accessible and consumable; and

WHEREAS, the City and SSL Innovations have negotiated the Agreement substantially in the form on file with the City Clerk that sets forth the requirements for SSL Innovations services; and

WHEREAS, there are sufficient funds budgeted to cover the costs of the Agreement; and

WHEREAS, the Agreement is in the best interest of the City and the health, safety, and welfare of its residents, and in accord with the public purposes and provisions of applicable state and local laws and requirements.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA that:

1. The above recitals and true and are incorporated herein by this reference.
2. The City Manager is hereby authorized to execute a Contract Agreement with SSL Innovations, in a form acceptable to the City Attorney, and to execute all other documents and to take such actions as necessary to carry out the intent of this Resolution.

This Resolution shall become effective immediately upon its passage

PASSED AND ADOPTED by the City Council of the City of Rancho Cordova on the 21st day of November 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Donald Terry, Mayor

Stacy Leitner, CMC
City Clerk

BAY VALLEY TECH
Code Academy
www.bayvalleytech.com

October 21, 2022

City of Rancho Cordova
Economic Development Department
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Re: Workforce Recovery Program

To Economic Development Department,

Bay Valley Foundation (BVF) is submitting the following **'DIGITAL SKILLS ACCELERATOR'** proposal to address Rancho Cordova's commitment to further propel its Workforce Recovery Program and prepare local adults for more skilled, higher-paid tech jobs. BVF's tuition-free online/on-site hybrid training program utilizes the name "**Bay Valley Tech (BVT)**," and is designed to be flexible for students in all situations. The terms Bay Valley Foundation and Bay Valley Tech are used interchangeably. Our program has been especially effective for those who may be unemployed, underemployed or looking to change career paths as a result of the Covid pandemic. This comprehensive training will enable local workers to become more skilled and hirable by employers.

Our comprehensive tech skills and community growth program will include seven parts:

1) Digital skills training for 25 Rancho Cordova residents in our six-month hybrid online/on-site in our Digital Skills Bootcamp
2) Paid internships for 25 Rancho Cordova residents
    a) Pays up to $25.00 hour
    b) Approximately 15 hours per week for 12 weeks
3) Free virtual technology or computer literacy training for up to 100 additional students referred by of Rancho Cordova during the 12 months of this program
4) 6 months of career prep and placement services for 25 Rancho Cordova residents, including employer coaching and introductions
    a) Interns can be from other technology training programs or bootcamps
5) Free digital design and digital marketing services for up to 10 small business (or non-profits) located in Rancho Cordova
6) Tech community growth–Bay Valley Foundation will organize two community-building onsite tech events in the city of Rancho Cordova
7) Employer introductions–Bay Valley Foundation to introduce three potential tech employers to Rancho Cordova city staff

By expanding Rancho Cordova's digital talent pool, this program will enable local companies experiencing tech worker shortages to accelerate growth. Furthermore, a growing skilled labor force will attract more tech employers to the Rancho Cordova area due to the Bay Area's chronic shortage of digital talent. Preparing the city's residents to enter digital-based careers will further enhance Rancho Cordova's economy by giving more local workers access to higher-paying jobs and the ability to work remotely, reducing COVID-related employment disruptions.

As the number of unfilled tech job openings reaches nearly one million and non-tech industries adopt new technologies to remain competitive, the ever-increasing demand for tech talent is creating unprecedented opportunities for digital workers. Many Sacramento County cities and workers have largely missed out on this tech economy, but BVF's programs are now helping non-tech workers quickly pivot into lucrative tech careers, with a 95% placement rate for those who completed the digital skills training and internship. We provide a clear career pathway for workers to transition from low-wage to high-wage work and engage vulnerable populations that have experienced wage gaps, employment gaps, exclusion from the workforce and disproportionate employment in low-quality jobs.

Founded in 2018, Bay Valley Foundation, a 501(c)(3), is a workforce development and low-barrier tech training organization headquartered in California's Central Valley. With a staff of 15 employees and contractors as well as many volunteers, we have helped many people transition into high-paying technology-based careers at leading companies.

Ethnicity:
- 42% Latino
- 13% Asian/Pacific Islander
- 3% Black/African American
- 34% Women

Annual Household Income:
- 23% $0 to $20K
- 27% $20K to $40K

Economic Potential:
Adding 100 new skilled tech workers to a city will generate $450 million in direct salaries and $2.1 billion in overall economic impact over their 30-year careers. Bay Valley Foundation's internship programs promote equity by transitioning individuals from low-paying jobs into lucrative tech careers. Our success and growth are demonstrated by Bay Valley Foundation's alumni who have secured tech jobs and paid internships with leading Central Valley employers and Bay Area companies that have expanded here:

- E&J Gallo
- County of Merced
- Tyler Technologies
- American Medical Response
- Turlock School District
- Varsity Technologies
- Novo Technologies
- OtterSoft

- Walmart
- Tesla
- DataPath
- Oportun

Bay Valley Foundation has successfully established extensive partnerships to promote a sustainable bridge to high-paying tech careers for low-skilled, underrepresented adults. Some of our key partnership agreements in which BVF provides tech skills training, internships and job placement services include:

- Stanislaus County Office of Education (code academy, digital skills bootcamp, tech internships, co-working space)
- Stanislaus County Workforce Development (internships, employer outreach, career coaching, interview prep, employer networking, employer engagement and hiring coordination)
- CSU Stanislaus (coding bootcamps for South Korean university computer science students)
- Modesto City Schools, Patterson Adult School, Turlock Adult School (code academy and digital skills bootcamp)
- Stanislaus Partners in Education (SPIE) (teachers' summer web development bootcamp)
- ConSol USA (agreement to hire hundreds of BVT alumni)
- Oak Valley Community Bank (code academy funding)
- Bank of Stockton (code academy funding)
- The Salvation Army-Modesto (kids after-school tech bootcamp)

BVF has also established long-term partnerships with private companies and foundations such as Oak Valley Community Bank, Bank of Stockton and The Raymus Foundation.

Proposed Budget:
We intend to use the Workforce Recovery Program funds to provide free digital and technology skills training for up to 100 Rancho Cordova adult residents. The primary expenses will be software for students, program management/student outreach and curriculum/instruction.

This program will provide ongoing, long-term economic benefit for Rancho Cordova. Expanding the region's skilled labor force will alleviate COVID-driven economic challenges by helping local companies grow, increasing the earning potential of local workers and attracting more high-tech, high-wage employers to Rancho Cordova.

Wages for Interns: ($25/hr, 15 hrs/week, 12 weeks)	$112,500
Payroll Taxes:	$ 8,600
Employer Outreach and Career Placement:	$ 17,000
Internship Supervision/Instruction:	$ 20,000
Curriculum & Student Projects Development	$ 7,500
Student Outreach & Marketing:	$ 18,000
Instruction for 25 Students (plus 100 online students):	$ 87,500
TOTAL COST:	$271,100

Student Recruitment: Active student outreach and recruitment will be a multi-pronged approach:

- Partner with key stakeholders such as the Greater Sacramento Economic Council, County Office of Education, County Workforce Development, alternative and adult education programs, Chamber of Commerce as well as the City of Rancho Cordova to increase student awareness of Bay Valley Foundation's paid internship program – especially to those who have completed web development or digital skills training through earlier City initiatives.
- Community outreach via public relations, digital advertising and social media channels (Facebook, Instagram, LinkedIn, etc.)
- Direct outreach to local education partners

References: Training and Placement Services:

Bay Valley Foundation has a proven track record of partnering with local organizations to provide free training programs, internships and create new technology-based jobs in the Central Valley, Sacramento region and San Francisco Bay Area.

Eugene Garcia, Business Services Manager
Stanislaus County Workforce Development (Workforce development/job placement)
251 E. Hackett Road, C-2
Modesto, CA 95358
(209) 558-2100
GarciEu@stanworkforce.com
Services Provided: (Paid Internship Program)
Dates of Service: 2020 - 2024
Contract Term: two years
Contract Amount: $1.5 million

Jesse Ceja, Principal

Turlock Adult School (Industry: Adult education)
1574 E. Canal Drive
Turlock, CA 95380
(209) 667-0643
JCeja@turlock.k12.ca.us
Services Provided: (Industry: Web Development & Digital Skills training)
Dates of Service: 2019 to present
Contract Term: One year
Contract Amount: $140K

Dr. Ellen Junn, President
California State University at Stanislaus (Industry: Education)
One University Circle
Turlock, CA 95382
(209) 667-3201
President@csustan.edu
Services Provided: Coding Bootcamp for CSU Stanislaus students
Dates of Service: 2020 - 2021
Contract Amount: $60K

Tax Exempt ID No.
83-1681369

Business License:
Currently a WIP.

Financials:
See attached.
Based on past successes and the phenomenal growth that Bay Valley Foundation has experienced in providing in-demand tech training, we are confident that we can be a valuable partner to Rancho Cordova in upskilling the city's workforce and placing well-trained, hirable interns with local employers.

Sincerely,

Phillip Lan, President
Bay Valley Foundation LLC
(510) 703-5814

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QUALIFICATIONS / EXPERIENCE

Bay Valley Foundation will be the project lead for the Rancho Cordova Workforce Recovery Program outlined below. Bay Valley Foundation is a non-profit (EIN #83-1681369) 501(c)(3) founded and incorporated in 2018.

Bay Valley Tech will provide the digital skills training, paid internship and job placement services, which will include career coaching, mentor outreach and placement services. BVF has successfully collaborated with a broad range of mission-driven organizations and agencies. The following partners will work with Bay Valley Foundation to ensure success of this project:

- The Greater Sacramento Economic Council to assist with marketing, business outreach and placement.
- Connect Silicon Valley to assist with business/employer outreach.
- Others?

These Bay Valley Foundation partners have strong reputations in their communities and have all been operating for several years and in some instances, decades. Bay Valley Foundation will assign the following key staff to ensure the success of this project:

THE BAY VALLEY TECH TEAM:

- Phillip Lan will be the primary liaison and oversee this workforce development project, including career coaching and outreach to tech employers. As President of Bay Valley Foundation, Phil has leveraged his strong industry connections to successfully connect many of our students with local employers and has also brought several tech employers to the Central Valley. He is a veteran of several Silicon Valley technology companies, including IBM and AskJeeves. Phil previously led the San Francisco technology recruiting practice for Robert Half, a Fortune 500 staffing company, and managed E&J Gallo's worldwide digital marketing organization.

  Phillip Lan, Ripon, CA (510) 703-5814 / phil@bayvalleytech.com

- Dori Jones will lead Bay Valley Foundation's awareness-building initiatives for the Rancho Cordova project. She is a marketing and public relations expert who has over 20 years of experience working with Bay Area companies.

  Dori Jones, Groveland, CA (209) 840-0746 / info@bayvalleytech.com

- Taylor LaMar is Bay Valley Tech's head curriculum and instruction advisor. He is also a professional software developer who manages a leading software development consultancy in the Central Valley. Taylor has more than seven years of experience in software development and tech instruction. He has overseen training for hundreds of Bay Valley Tech's students.

  Taylor LaMar, Modesto, CA (209) 985-4826 / taylor@lamarsoftware.io

- Martyn Conkling is an education professional with eight years of experience teaching hundreds of students from broad backgrounds as well as education administration, curriculum development and technology training.

  Martyn Conkling, Modesto, CA (215) 602-6065 / martyn@bayvalleytech.com

- Amanda Barlow has 4 years' experience as a professional web design consultant and an instructor at Bay Valley Tech. She earned an associate of science degree in web development from Cosumnes River College, worked as a special education paraprofessional for Lodi Unified School District and is also the owner of Batcave Comics & Toys, where she manages its website and e-commerce, among other roles.

  Amanda Barlow, Santa Rosa, CA (209) 649-7751 / abarlow352@gmail.com

- Blake Shaw has more than 10 years of professional experience, including two in social work. He oversees Bay Valley Tech's partnership and employer relationships.

  Blake Shaw, Modesto, CA (415) 580-9583 / blake@bayvalleytech.com

- Aaron Gunderson has been an instructor and internship coach at Bay Valley Tech for the past three years. Aaron completed Bay Valley Tech's training and now oversees its internship program.

  Aaron Gunderson, Modesto, CA (209) 241-6862 / aaron@bayvalleytech.com

RECENT SUCCESSFUL PARTNERSHIPS:
Bay Valley Foundation has provided training and related services (through similar funding agreements as this proposal) to the Stanislaus County Office of Education, Stanislaus County Workforce Development, Modesto City Schools, California State University Stanislaus, Turlock Adult School and others. All of Bay Valley Foundation's training agreements have been renewed.

1. The state of California recently awarded Bay Valley Foundation (through our Stanislaus County Workforce Development partnership) a $5 million pandemic recovery grant to provide digital skills training and paid internships for 180 students in the Central Valley. In the first two months, we have already recruited over 200 applicants, with 35 approved and 80 pending approval.

   Stanislaus County Workforce
   Andy Fiskum
   251 E. Hackett Road C-2
   Modesto, CA 95358
   (209) 558-2133
   fiskuma@stanworkforce.com
   Contract Term: Two years
   Contract Amount: $1.5 million (portion of the $5 million grant assigned to Bay Valley Foundation)

2. This year, Turlock Adult School has been awarded Bay Valley Foundation $140K to train students in both digital skills and web development training.

   Jesse Ceja, Principal
   Turlock Adult School (Industry: Adult education)
   1574 E. Canal Drive
   Turlock, CA 95380
   (209) 667-0643
   JCeja@turlock.k12.ca.us
   Services Provided: (Industry: Web Development & Digital Skills training)
   Dates of Service: 2019 to present
   Contract Term: One year
   Contract Amount: $140K

3. In August 2022, we launched a kids after-school digital skills bootcamp in partnership with Salvation Army - Modesto.

   Maria Arellano
   Salvation Army Red Shield Center - Modesto
   1649 Las Vegas St, Modesto, CA 95358
   (209) 538-7111
   maria.arellano@usw.salvationarmy.org
   Services Provided: Children's After-school Digital Skills Bootcamp
   Dates of Service: August 2022 - Jan 2023
   Contract Term: 6 months

Contract Amount: $152,500

4. In 2021, Bay Valley Tech trained 10 computer science students from Tongmyong University in South Korea, and simultaneously taught 10 CSUS computer science students in a coding bootcamp.

   Dr. Ellen Junn, President
   California State University at Stanislaus (Industry: Education)
   One University Circle Turlock, CA 95382
   (209) 667-3201
   President@csustan.edu
   Services Provided: Coding Bootcamp for CSUStanislaus students
   Dates of Service: 2020 - 2021
   Contract Amount: $60K

5. BVF trains approximately 15 students each year for Patterson Adult School in the latest web development languages.

   Marcos Huerta
   Patterson Adult School, Alternative Programs
   201 North Ninth St. Patterson, CA 95363
   (209) 675-4074
   mhuerta@patterson.k12.ca.us
   Services Provided: Web development training
   Dates of Service: 9/15/22- 5/31/23
   Contract Amount: $87,500

PROJECT DESCRIPTION:

Name of Project:

BAY VALLEY TECH 'DIGITAL SKILLS ACCELERATOR' PROGRAM

Our comprehensive tech skills and community growth program will include seven parts:

8) Digital skills training for 25 Rancho Cordova residents in our six-month hybrid online/on-site in our Digital Skills Bootcamp
9) Paid internships for 25 Rancho Cordova residents
    a) Pays up to $25.00 hour
    b) Approximately 15 hours per week for 12 weeks
10) Free virtual technology or computer literacy training for up to 100 additional students referred by of Rancho Cordova during the 12 months of this program
11) 6 months of career prep and placement services for 25 Rancho Cordova residents, including employer coaching and introductions
    a) Interns can be from other technology training programs or bootcamps
12) Free digital design and digital marketing services for up to 10 small business (or non-profits) located in Rancho Cordova
13) Tech community growth–Bay Valley Foundation will organize two community-building onsite tech events in the city of Rancho Cordova
14) Employer introductions–Bay Valley Foundation to introduce three potential tech employers to Rancho Cordova city staff

Digital Skills Bootcamp (6-month program)
BVF proposes that we will train up to 25 students, who represent underserved Rancho Cordova residents in in-demand digital skills and prepare them for entry-level positions as digital designers, digital marketers, project managers, web developers, etc. Applicants to our training programs will be required to apply online (https://www.bayvalleytech.com/code-academy-application), complete the mandatory pre-study assignments and attend at least two virtual information/study sessions. Once the student completes these prerequisites, they will be accepted into the Digital Skills Bootcamp and begin the training. This program consists of four modules that provide a broad exposure to disciplines that directly correlate to the critical tech skills that are in such high demand.

Digital Skills Bootcamp Syllabus
2022-2024

Module 1: Digital Design

Weeks 1 & 2 (Digital Design & Intro to Digital Marketing)

- What are Digital Design, Web Development and Digital Marketing; why they are highly relevant to businesses, and how they are related
  - Marketing Funnel: Awareness>Engagement>Conversion>Advocacy
  - Better Decision-Making: Every click is a survey
  - Lowers Cost-Per-Acquisition (key to success for any business)
  - Conversion Optimization
- What you're going to learn
- What you're going to do

Weeks 3 & 4 (Digital Design Look and Feel)

- Canva
  - https://www.canva.com/learn/a-step-by-step-guide-to-designing-from-scratch/
  - Design Templates
  - Functions/tools overview
    - Canva Color Palettes/Coolors.co
    - Format selection
    - Design tools, libraries
    - File types
- Adobe Illustrator
  - https://helpx.adobe.com/illustrator/how-to/illustration-techniques.html
  - Design tools
  - Converting formats/file types for social media
- Digital design conversion (the same tools being used to create business cards, signage, letterhead, etc.)

Week 5 (UX/UI – User Experience/User Interface)

- For Accessibility
- For Process
- For Social Media

- Responsive Design (flexible for Desktop and Mobile)

Week 6 (Basic Design Projects)
- Logo Design
- Flyers & Advertisements
- Business Presentations Design
- Web Design
- Mobile Design
- UX/UI

Module 2: Website Development

Week 1 (Preparation & Content Management Systems)
- Wix -- easy to get started, least customization
  - Features
  - Templates
  - Layouts
- WordPress -- middle
  - Features
  - Templates
  - Layouts

Week 2 (HTML/CSS)
- Free Code Camp
- HTML Basics
- Basic CSS
- Applied Visual Design and Accessibility
- Responsive Web Design Principles
- CSS Flexbox
- Bootstrap grid (Custom Lecture)
- Basic webpage projects

Weeks 3 & 4 (JavaScript)
- Free Code Camp
- If/Else Statements
- Loops
- Functions

- Objects
- OO programming
- Classes and class properties
- ES6
- Functional Programing

Week 5 (Introduction to Databases & APIs)

- Intro to SQL
- Intro to Restful API with Express and Node.js
-

Week 6 (Build Customized Website Projects

- CMS Websites using Wix or Wordpress
- Customize with HTML/CSS

Module 3: Digital Marketing

Weeks 1 (Digital Marketing & Social Media Marketing Overview)

- Marketing Funnel: Awareness>Engagement>Conversion>Advocacy
- Goal-setting: define success (what does success look like?)
- Digital Branding
- Social Media
  - Best practices
  - Introducing users to new products or services
  - Engagement
  - Advocacy of your products and services
- Email - Engagement, drip marketing campaigns
- Earned Media

Week 2 (Content Creation)

- Writing for SEO and Users
- Image Creation
- Digital Video Production
- Asset Management

Week 3 (Paid Search)

- PPC Campaigns
- Google AdWords

- Campaigns, AdGroups, Ads
- Importance of quality score
- Bidding and landing page quality

Week 4 (Search Engine Optimization–SEO)

- Meta tags
- Keyword stuffing
- Backlink building
- Plugging

Week 5 (Social Media Marketing–Organic and Paid)

- Channels - Facebook, LinkedIn
- Engagement Timing
- Optimum Content
- Digital Branding
- Public Relations

Week 6 (Email Marketing & Conversion Optimization)

- Email Tools
- Strategy: Tease, Target, Teach, Test and Track
- Webpage Optimization
- Google Analytics
- Reducing Abandonment Rates

Module 4: Data Analytics, Digital Careers & Entrepreneurship

Week 1 (Data Analytics)

- Customer Analytics
- Operational Analytics
- Google Analytics
- Conversion Optimization
- Fraud and Compliance
- New Product & Service Innovation

Weeks 2 & 3 (Digital Careers Prep - Tech Roles)

- Software Developer
- Software Quality Assurance Engineer

- Cybersecurity Analyst
- IT Help Desk Technician
- Project Manager, Business Analyst & Operations

Weeks 4 & 5 (Digital Careers Prep - Tech-Related Roles)

- Tech Sales & Business Development
- Partnership & Account Management
- Technology Instruction
- Tech Recruiting
- Optional Sections
  - In-Depth Tools for Digital Careers
  - Practice projects for Digital Careers

Week 6 (Entrepreneurship)

- Concept & Market Fit
- Organizational Structures
- Cofounders
- Funding and “Smart Money”
- Elevator Pitch
- Startup Execution and Operations

Paid Internship (12 weeks part-time, $25.00 per hour)

- Hybrid online/onsite internship managed by Bay Valley Tech in collaboration with employer partners.
- Approximately 15 hours per week for 12 weeks.
- Interns will work on a variety of projects, including helping Rancho Cordova businesses with their technology, digital design or digital marketing projects.
- Mentorship by corporate professionals and hiring managers.

Job Placement Services:

- Employer outreach and awareness building about Rancho Cordova/Bay Valley Foundation interns.
- Career coaching and interview prep for students by BVF staff and employer mentors

- Interview and job placement coordination with interns and employers for 6 months.

Recruitment:
Bay Valley Foundation will utilize our strategic student recruitment partnership program (County Workforce Development, County Office of Education, community colleges, California State University, Salvation Army, NAACP, etc.), public relations and digital marketing campaigns to increase awareness of this program. Our innovative recruiting campaigns have resulted in thousands of new applicants from underserved communities from the Central Valley and across Northern California.

Population Served:
Bay Valley Foundation has a very diverse student base. We would expect students recruited from Rancho Cordova to be similar to our area's demographics, adjusting for slight differences specific to the immediate area. Bay Valley Foundation student demographics:

- 42% Latino
- 13% Asian/Pacific Islander
- 3% Black/African-American
- 34% Women
- 50% From households with annual income below $40,000

Intake Process:

Prospective students begin by completing our online application (https://www.bayvalleytech.com/internship-application). Applicants then must then complete a series of prerequisite online lessons, attend several online information/study sessions and complete an informational interview. The admissions committee will make the final determination whether the applicant is ready to begin the program. Students who demonstrate grit/determination, a strong community spirit/willingness to help others and previous technical education or experience tend to make the strongest candidates for Bay Valley Foundation's programs.

Program Model:
Once the student applies for BVF's program, they will be instructed to complete pre-study assignments and attend several virtual information/study sessions. After completing these prerequisites, the student is ready to begin training. The digital skills

training consists of 4 modules, each taking about 6 weeks to complete. Students are expected to spend a minimum of 20-25 hours per week working on assignments and projects. BVF helps ensure a student's success by staying in close contact with them as they progress through the program.

Students will be coached by a lead project manager and assigned to project teams of 4 or 5 students. They will learn industry-relevant Agile Development Methodologies and participate in daily "stand-up" project team meetings similar to how corporate software development teams are organized.

The internship portion of this program is part-time (15 hours per week) with online and onsite meetings, daily 'stand-ups' with their teams.

Students will receive group career coaching, resumé writing, portfolio and interview prep, and will also participate in practice interviews. Bay Valley Foundation's employer outreach encourages companies to mentor students in the internship program in addition to providing internships and entry-level software development jobs.

Ensuring Skills Attainment:
Bay Valley Foundation's curriculum is designed with input from hiring managers, and the program gives students access to industry professionals as tutors and mentors during the program. Students are supported throughout their internship from networking with local employers, to interview and resumé/portfolio coaching, and finding employment.

Expected Outcomes:
Bay Valley Foundation students who complete the Digital Skills Bootcamp and internship program have a 95% placement rate securing additional paid internships or entry-level tech jobs.

Workforce Development Program Experience:
In addition to providing paid internships, Bay Valley Foundation has successfully built partnerships with a broad coalition of public and private stakeholders to ensure a complete pathway for workers to transition into fulfilling high-paying careers. Many of our alumni have secured work at companies and organizations such as Walmart, Tesla, E&J Gallo, Tyler Technologies, Novo Technologies, Clearwave Software, Bixly, WebEnertia, DataPath, Oportun, Turlock School District, Varsity Technologies and Merced County.

Monitoring Outcomes:
Bay Valley Foundation conducts student surveys during and after the program and will provide monthly status reports, which will provide details on the status of each student's progress, the students' completed hours, the type of progress they have achieved in the program, as well as aggregate demographic and geographic student information.

PROJECT TIMELINE

Milestone	Date	Prerequisite Milestone/Contingency
Present Curriculum to Rancho Cordova Team - Introduce Bay Valley Foundation Team	Dec 2022	
Outreach to Community/Corporate Partners	Jan – Apr 2023	
Student Outreach	Jan – Mar 2023	Student outreach for up to 25 successful applicants
Application Process Closes	Apr 2023	All openings are filled
Students Complete Pre-Study Lessons	Apr – June 2023	Students begin pre-study lessons
BVT conducts student informational interviews	Apr 2023	Students have completed their prerequisite lessons
Admissions Committee makes final selection of students	Apr 2023	Students have completed informational interviews
Digital Skills Bootcamp Begins	Apr 2023	4-month Digital Skills Curriculum Begins
MODULE 1: Digital Design	6 Weeks to complete	Digital Design & Intro to Digital Marketing; Digital Design Look and Feel (Canva, Adobe Illustrator, Digital Design Conversion;

		User Experience/User Interface; Basic Design Projects (logo, flyers, ads, presentations, web design, mobile design)
MODULE 2: Website Development	6 Weeks to complete	Preparation/Content Management Systems (Wix, WordPress); HTML/CSS; JavaScript; Intro to Databases & APIs; Build Customized Website Projects
MODULE 3: Digital Marketing	6 Weeks to complete	Digital Marketing/Social Media Marketing, Content Creation, SEO, Email Marketing/ Conversion Optimization
MODULE 4: Data Analytics, Digital Careers & Entrepreneurship	6 Weeks to complete	Data Analytics, Digital Career Prep – Tech Roles, Entrepreneurship
Internship Begins	12 Weeks to complete	$25.00 per hour. Work to include assisting Rancho Cordova businesses
Professional Development	Oct 2023	Interns have completed or are close to completing their internship. Begin Interview Prep, Resumé Writing, Portfolio Development
Job Search Support/ Employer Outreach	Sept – Dec 2023	Students have completed or are in the process of completing their internships. Employer outreach begins; create networking opportunities/intros to employers.

SOURCES AND USE OF FUNDS

PROPOSED BUDGET:

Wages for Interns: ($25/HR, 15 HRS/WEEK, 12 WEEKS)	$112,500
Payroll Taxes:	$ 8,600
Employer Outreach and Career Placement:	$ 17,000
Internship Supervision/Instruction:	$ 20,000
Curriculum & Student Projects Development	$ 7,500
Student Outreach & Marketing:	$ 18,000
Instruction for 25 Students (plus 100 online students):	$ 87,500
TOTAL COST:	$271,100

Total program cost: $271,100. Use of funds:

- 90% Payroll (instruction, marketing, awareness building, partnerships, career coaching, employer outreach)
- 10% Utilities, Insurance, Rent

CONFLICT OF INTEREST STATEMENT
Bay Valley Foundation declares that there is no conflict of interest.

EXCEPTIONS
None.

SUPPORTIVE INFORMATION

California-based tech firms such as Google, Uber and Salesforce are experiencing severe tech worker shortages and are now seeking talent out of state, exporting high-wage jobs. Google announced that they will open tech job centers in nine other states. The Central Valley and Sacramento regions are losing out on these opportunities because they are lacking the skilled tech workforce that these large companies demand.

The Central Valley's 6.5 million residents (larger than the populations of 30 other states) will make the region an attractive investment destination once enough local tech workers have been trained. Bay Valley Foundation's paid internship program will help thousands of low-wage workers transition into high-paying careers and provide the California-based tech talent pool that Bay Area tech companies need.

To date, Bay Valley Foundation has:

- Improved the software development skills of almost 300 Central Valley, Sacramento area and Bay Area residents.
- Helped many local companies grow by providing hard-to-find software talent and facilitated expansion of Bay Area companies into the Central Valley.
- Built a local public/private coalition of 50 partners and corporate sponsors working toward the common goal of creating tech jobs and providing free software developer training for low-skilled workers.
- Organized more than 70 educational events and trainings.
- Sponsored high school and junior high coding initiatives.
- Grown the Valley Hackathon events, which facilitates rapid learning, to include 200 participants.
- Helped organize the annual AgTech Summit featuring executives from E&J Gallo, Blue Diamond as well as State Controller Betty Yee and California Assemblymember Heath Flora.

Charles A. Jones Career and Education Center

Manufacturing Training Program

for Rancho Cordova Residents

Workforce Recovery Program

Program Proposal for the Rancho Cordova

Angela Hatter-Site Administrator

Charles A. Jones Career and Education Center

5451 Lemon Hill Avenue

Sacramento, CA 95824

October 21, 2022

CHARLES A. JONES CAREER & EDUCATION CENTER
Sacramento City Unified School District

Susan Lytle Gilmore, Ph.D.
Director III, Adult Education

October 21, 2022

ATTN: Ms. Amanda Norton
Economic Development Manager
City of Rancho Cordova
Economic Development
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Dear Ms. Norton:

This letter of introduction is in response to The City of Rancho Cordova's Notice of Funding Availability (NOFA) for Service Provider(s) to administer a Workforce Recovery Program for the Rancho Cordova Residents. Please accept the attached proposal for Charles A Jones Career and Education Center (CAJ) and affiliated partners to provide the services detailed in the NOFA for the field of Manufacturing.

The team that is gathered in this proposal is CAJ and the Sacramento Valley Manufacturing Alliance (SVMA). This proposal brings together an effective team that has collaborated on more than one workforce development project in the past two years. Examples include initiatives funded by the City of Sacramento CARES Act Grant, the Sacramento Employment & Training Agency Regional Planning Initiative (SETA RPI), and the Capital Adult Education Regional Consortium. CAJ, a nationally accredited adult school operating under the Sacramento City Unified School District, has been offering quality vocational certification training programs since 1967. Current programs include Medical Assistant, Manufacturing Pre-Apprenticeship and Manufacturing Technician, Nurse Assistant Training, Pharmacy Technician, and Vocational Nursing. With grant funding from the City of Rancho Cordova, CAJ would provide classes in Forklift Operation, Introduction to Manufacturing, Material Handling and Logistics, Electro-mechanical Assembly, Welding Fabrication I, and a comprehensive Manufacturing Technician program that includes training in all previously mentioned components. Students completing all CAJ manufacturing classes and programs would earn industry-recognized certifications. In addition, these CAJ manufacturing classes and programs are pathways into SVMA's Apprenticeship program.

SVMA was founded in 2018 by local manufacturers to address the region's growing demand for a skilled workforce in the manufacturing sector. The organization is committed to working with partners in education and industry to develop vocational education and workforce development programs. CAJ is also in partnership with The Lemon Hill Job Center, an America's Job Center of California (AJCC), located on CAJ's campus. For over 30 years, the Lemon Hill Job Center has provided job placement and wrap-around services to participating CAJ students and to the public from the CAJ campus and its previous locations.

As a team, CAJ and SVMA are uniquely qualified to collaborate and perform on the objectives of the Workforce Development Training and Certification Program to train, upskill, and place Rancho Cordova residents who are unemployed or underemployed because of the pandemic in skills desirable in the key growth industry of Manufacturing. For many years, CAJ has served Rancho Cordova residents in various programs within the school. With additional grant funding, CAJ will be able to expand services to more Rancho Cordova residents. Under contract with CAJ, SVMA would market CAJ manufacturing programs, prepare metrics, and issue placement bonuses for all participants in the programs. Together, the organizations in this proposal will help the City of Rancho Cordova meet the pandemic and economic development-related goals to:

- Providing immediate employment services and resources for adults in Rancho Cordova who are unemployed, underemployed, or looking to change career paths; those who lack transportation, childcare, or educational attainment, those who need job coaching or case management services, and other supportive services to aid jobseekers in securing employment;
- Increasing the number of trained and skilled workers that were left unemployed, underemployed, or seeking a change in careers due to the COVID-19 crisis;
- Creating competitive candidates for local employers to access and employ;
- Upskilling and reskilling training opportunities in high-demand industries and occupations;
- Improving job placement rates by securing employment opportunities for dislocated workers;
- Increasing the number of employed residents generating income that produces economic sustainability for themselves, their families, and their communities;
- Providing direct job placement or internship opportunities for adult job seekers.

The mission of Charles A. Jones Career and Education Center is to enrich the lives of adults by providing a positive and innovative learning environment for academic and career technical training empowering them to become employed and productive members of their communities. CAJ is fully committed to working with our SVMA and AJCC partners to enhance and strengthen workforce development programs for our community, which includes the nearby City of Rancho Cordova. We look forward to the opportunity to enhance our work with our Rancho Cordova City residents!

Sincerely,

Susan Lytle Gilmore

Susan Lytle Gilmore, Ph.D.
Director III, Adult Education

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3. Qualifications and Experience

Charles A. Jones Career and Education Center (CAJ), in partnership with the Lemon Hill Job Center and Sacramento Valley Manufacturing Alliance (SMVA), are uniquely qualified to be the service provider for the Rancho Cordova Workforce Development program. CAJ and the Lemon Hill Job Center have been working seamlessly at a shared location for over 30 years. CAJ is well-positioned to meet the training and certification needs of individuals pursuing a career in the manufacturing sector. CAJ also offers. The Lemon Hill Job Center has a proven track record of providing services for students that qualify for WIOA Title I services. SVMA was founded by local manufacturers In 2018 and had unparalleled access to manufacturers in the region to market the program and place students in positions in the Sacramento Valley region. The responsibilities of the three organizations are summarized in Table 1 below. Detailed descriptions of qualifications and experience are in the following sections.

Table 1 -Program Roles and Responsibilities

Organization	Key Staff	Title	Program Responsibilities
CAJ	Angela Hatter	Site Administrator	● Primary Liason ● Administration of Progam ● Manage Program Development
	Todd Frazee	Manufacturing Career Technical Education (CTE) Instructor	● CTE Instruction ● Skills Certification
SVMA	Dean Peckham	Executive Director	● Market Program ● Job Placement ● Track Employment Longevity ● Issue Placement Bonuses ● Program Metrics ● Transportation Stipends

Charles A. Jones Career and Education Center

Charles A. Jones Career and Education Center (CAJ) is part of the Sacramento City Unified School District (SCUSD) and operates under the governance of the State of California Department of Education (CDE). CAJ opened in 1967 as the Skills and Business Education Center, and classes have been held at the current site at 5451 Lemon Hill Avenue. CAJ offers vocational training programs in Medical Assistant, Manufacturing Pre-Apprenticeship, Nurse Assistant Training, Pharmacy Technician, and Vocational Nursing.

Budget and Funding Sources

In the 2021-22 program year, Charles A. Jones Career and Education Center and the Lemon Hill Job Center have been funded through several sources. Both organizations are operated by SCUSD staff, so the budgets are combined in Table 2 below:

Table 2 -CAJ and Lemon Hill Job Center Funding Sources	
Source	**Amount**
California Adult Education Program (CAEP)	$1,508,793
Workforce Innovation and Opportunity Act Title (WIOA) I through (SETA)	$603,950
Workforce Innovation and Opportunity Act Title II	$169,807
California Firefighters Apprenticeship	$487,196
CalWorks	$47,252
Student Fees generated through Federal Financial Aid*.	$1,288,060
Higher Education Emergency Relief Fund (HEERF)*	$1,375,839
TOTAL	$5,480,897

*The figures listed for student fees are based on the 2020-2021 school year. The.2021-2022 school year student fees have not yet been determined. Enrollment declines due to the COVID-19 pandemic have drastically reduced income from student fees. HEERF funding provided by the US Department of Education has covered shortfalls and losses.

CAJ has also benefited from in-kind funding provided in equipment and tooling donations from manufacturing industry partners totaling approximately $335,000.00 since the manufacturing program's inception.

List of Jurisdictions and Projects Similar To The Proposed Program

CAJ launched the Manufacturing Pre-Apprenticeship Program in 2020 with CARES Act funding as Workforce Development Certification Program to train, upskill, and place individuals who have had their employment disrupted by the pandemic in the manufacturing industry. Manufacturing has been identified as a key area of growth in the region. The CAJ Manufacturing Pre-Apprenticeship program is a "boot camp" style of training. In 90 contact hours over a few weeks, successful students learn entry-level skills and certifications to prepare them for an entry-level position in the manufacturing industry. The Manufacturing Pre-Apprenticeship Program provides skills for immediate job placement and entry into an industry-sponsored apprenticeship program and is also a prerequisite for the new Manufacturing Technician Program CAJ that launched in September of 2022.

To date, CAJ Manufacturing Programs have served 94 individuals, issued 65 Forklift Operator Certifications, and 67 10-hr. Council on Occupational Education (COE) requirements for CTE programs require a 60% completion and 70% placement rate minimum. For the 2021-2022 program year, the program has a current completion rate of 75% of participants completing all components and 87.5% completing at least one industry-recognized certification The placement reporting period for this program ends 12/30/2022, and we are confident we will meet the placement goals

References for previous projects are in Exhibit 1 of this proposal's Supporting Information/References section.

Primary Liaison For This Proposal:

Angela Hatter -Site Administrator
Charles A. Jones Career and Education Center
5451 Lemon Hill Avenue
Sacramento, CA 95824
916-394-5800 X701011
Angela-Hatter@scusd.edu

Key Staff

The CAJ has an experienced team of education professionals with backgrounds that include experience with instruction, instructional design, and program administration. Presented below is a matrix of staff responsibilities for this proposal and a summary of the qualifications of the members of the CAJ team. Detailed resumes and applicable credentials are available upon request.

Angela Hatter -Site Administrator & Primary Liaison

Angela Hatter is the Site Administrator for Charles A Jones Career and Education Center and would administer the program, manage program development, and act as the Primary Liaison for this proposal.

Angela Hatter has over 25 years of experience in the field of education, with 13 years of experience serving as a principal administrator for public adult schools and correctional education programs in California. Ms. Hatter has supervised secondary and post-secondary academic, substance abuse recovery, and career technical education programs and worked closely with industry partners on program development and placement services. She has overseen CTE programs in health occupations, Manufacturing, computers, and information technology pathways.

Charles A Jones Career and Education Center
5451 Lemon Hill Avenue
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916-394-5800 X701011
Angela-Hatter@scusd.edu

Todd Frazee -Manufacturing Career Technical Education Instructor

Todd Frazee is the primary Career Technical Education (CTE) instructor for the manufacturing programs and would be technical training and certification services and supervising all other faculty associated with this proposal. Todd has over 25 years of manufacturing engineering and management experience with a wide breadth of production systems. Todd developed the CAJ Manufacturing Programs and has taught the program classes since the program launched in the Fall of 2020. Todd also teaches Advanced Manufacturing at the Community College level. Todd earned a Bachelor of Arts in Industrial Arts (BAIA) in Product Development from San Francisco State University in 1996 and a Master of Education (MEd) in Learning Design and Technology from Arizona State University in 2020. He holds a CTE Teaching Credential from the California State Commission on Teacher Credentialing for the Product Development and Manufacturing pathway and is qualified to teach all program topics, including those requiring certification.

Todd is also an Authorized Outreach Trainer with the Occupational Safety and Health Administration (OSHA) through the OSHA Training Institute (OTI) at the University of California San Diego Extension (UCSD Extension).

Charles A Jones Career and Education Center
5451 Lemon Hill Avenue
Sacramento, CA 95824
916-394-5800 X701307
Todd-Frazee@scusd.edu

Sacramento Valley Manufacturing Alliance

Sacramento Valley Manufacturing Alliance (SVMA) has experience in the manufacturing sector, including human resources, skills development, market analysis, program marketing, employer recruitment and participation, community outreach and partnerships, and program administration.

Budget and Funding Sources

In the 2021-22 program year, SVMA has been funded through sources shown in Table 3 below:

Table 3 -SVMA Funding Sources

Source	Amount
CA Manufacturing Technology Consulting (Grant)	$ 60,000
CA Mobility Center (High Roads Training Partnership Grant)	$100,000
Memberships	$ 40,000
Contributions - Program	$120,000
Contributions - Events	$ 10,000
TOTAL	**$330,000**

Organizational Information

Organization Name: Sacramento Valley Manufacturing Alliance
Date of Incorporation: 12/20/2020
IRS Tax ID #: 86-1596027

List of Jurisdictions and Projects Similar To The Proposed Program

- In 2018 SVMA (formerly SVMI) received a $20,000 ETP grant from CA Mfg Technology Association to train 12 individuals as CNC Machinists and place them with local employers.
- In 2019 SVMA (formerly SVMI) received a $20,000 grant from the SBDC to train 13 individuals as CNC Machinists and place them with local employers
- In 2020 SVMA received a $55,000 CAI grant from Los Rios Community College District to train and register four individuals as journeymen machinists and develop an apprenticeship curriculum
- In 2020 SVMA received a $160,000 SETA Regional Planning Initiative (RPI) grant to develop and receive approval for a CNC Machinist Apprenticeship Program. Apprenticeship program approvals from US DOL and CA DAS in 2022.
- In 2020 SVMA received a $262,000 CARES grant from the City of Sacramento to recruit and train individuals for manufacturing careers. Funding was used to recruit and train city residents and launch the Regional Manufacturing Training Center at Charles A Jones.

References for previous projects are in Exhibit 2 of this proposal's Supporting Information/References section.

Key Staff

Presented below is a summary of the qualifications of the member of the Sacramento Valley Manufacturing Alliance. A detailed resume is available upon request.

Dean Peckham, Executive Director

Dean Peckham is the Executive Director of SVMA. Dean would Market the Program to employers, prepare Program Metrics, and Issue Placement Bonuses for participants of the program in this proposal. He would also provide Job Placement services and track Employment Longevity for program participants that are not eligible for WIOA Title I services.

Dean has served as the SVMA executive director since its formation in April 2018. Between April 2018 and June 2021, SVMA was organized under Valley Vision, which served as the SVMA fiscal sponsor. In 2020/2021, Dean successfully led SVMA's incorporation as a 501(c)3 nonprofit. Dean is responsible for all administrative oversight of SVMA programs & committees, business development, and day-to-day management activities.

In 2018 & 2019, Dean successfully implemented a manufacturing pre-apprenticeship training program in collaboration with Sierra College, training 28 people for manufacturing careers. In 2021, Dean successfully secured a State of CA CAI grant to train and certify four machinists as journeymen apprentice machinists. Certificates were awarded by the US Dept of Labor & the CA Dept of Apprenticeship Standards. In 2020 Dean led SVMA's effort to form a strategic partnership w/ CAJ to develop the Regional Manufacturing Training Center and the manufacturing training program. SVMA received two grants from SETA ($160,000) and the City of Sacramento CARES ($262,000), which helped launch the program at CAJ and train individuals for manufacturing careers. The SETA grant also helped launch the SVMA CNC Machinist Apprenticeship Program, approved by the CA Dept of Apprenticeship Standards in March 2022.

Prior to 2018, Dean served as a Senior Project Manager for the City of Sacramento Economic Development Dept. Responsibilities included business retention activities for city businesses, with an emphasis on industrial retention, Sacramento Enterprise Zone Manager, conversion of the Sacramento Army Depot to a privately-owned industrial business park (Depot Park), and the recruitment of local contractors and labor for the Golden 1 Center construction.

SVMA
3053 Freeport Blvd, #417
Sacramento, CA 95818
916-508-0892
dpeckham@sacvalleymfg.org

4. Project Description

Manufacturing Training Program for Rancho Cordova Residents

Project Design

SACRAMENTO REGION MANUFACTURING SECTOR OVERVIEW

In 2021, the Los Rios Community College Center of Excellence prepared an overview of the region's manufacturing sector. The Sacramento Region is home to over 4,000 manufacturing companies employing 35,561 people. Over 1,800 of these companies are located within Sacramento County, including 195 manufacturers in the City of Rancho Cordova and over 1,000 in the City of Sacramento. The region's manufacturers are projected to add 1,677 jobs by 2025. In 2020, 27 percent of the manufacturing workforce was within ten (10) years of retirement, creating an excellent opportunity for individuals interested in manufacturing careers. This is especially true for women, who only make up 27 % of the manufacturing workforce.

Population Served: City of Rancho Cordova Demographic Profile

The City of Rancho Cordova has an estimated 2021 population of 80,413, with 63.2% of the population between the ages of 18 and 65, i.e., the primary working age of the population. Female residents represent 51.0% of the population. Rancho Cordova has a diverse population; the Black population represents 10.6%, American Indian and Native Alaskan represent 0.5%, Asian alone is 13.7%, Native Hawaiian and Pacific Islander represent .6%, while the Latino population is 20.7%, and white alone, not Hispanic or Latino is 49%.

Rancho Cordova has a higher percentage of the population being foreign-born (24.5%) than Sacramento County (20.9%) or Sacramento City (21.3%).

The Rancho Cordova population is a diverse population that can support the area manufacturers struggling to build a more diverse workforce that reflects the region's diversity. In 2021-22, CAJ served 613 students: including, 41% Asian; 23% Hispanic; 21% white; 11% African American/Black; 1% American Indian; 1% Filipino; and 1% Native Hawaiian/Pacific Islander.

Rancho Cordova's demographic factors are; high school graduation rates at 88%, and 27% of the population holds a bachelor's degree or higher, Rancho Cordova has a 2020 median household income of $69,963, and a poverty rate of 11.6%. Enrolling Rancho Cordova residents at CAJ requires a high school diploma as an admission requirement for Career Technical Education programs.

All of these factors require that the Manufacturing Training Program for Rancho Cordova Residents be very focused on marketing to targeted populations within the community. SVMA will lead this effort by utilizing the following sources to market the program:

- Social media, such as Google & Facebook ads,
- A dedicated webpage, "Manufacturing Cares - Rancho Cordova,"

- CAJ & SVMA will host quarterly job fairs at the CAJ campus with social media ads marketing to Rancho Cordova residents and employers.

- Collaboration with the Rancho Cordova libraries to distribute marketing flyers

- Collaboration with the City of Rancho Cordova to identify and participate in community events to distribute marketing flyers

- Direct outreach to community-based organizations, including area churches and groups such as Folsom-Cordova Community Partnership (FCCP), Asian Resources Inc., and La Familia Counseling Center

- Outreach to the FCCP Job Center and Cordova High School. School college and career fairs are an excellent opportunity to market the program to high school seniors, their parents, family, and friends.

The targeted marketing focused on residents within Rancho Cordova Zip Codes 95655, 95670, 95741, and 95742. (Source US Census QuickFacts).

Intake Enrollment Process

Step 1 -Orientation

Step 2 -Assessments

Step 3 -Job Center Coach Conference

Step 4 -Job Services Pathway Determination

Pathways for job services:

1. Basic Career services with the Lemon Hill Job Center and individual job placement and follow-up services provided by SVMA.

2. Individualized Career Services with the Lemon Hill Job Center (WIOA Title I eligible)

3. FCCP would supervise participating clients.

Step 5 -Register for CAJ Manufacturing Program Class

More detail about the intake processes is available upon request.

Model of Service Delivery

The CAJ Manufacturing programs have specific start dates that are posted in the CAJ Program Catalog. Job Center coaches, SVMA staff, and CAJ Teachers mentor participants and assist them through the job search and placement process. Individualized employment plans (IEP) for participants will be developed by the Lemon Hill Job Center and SVMA with teacher input and collaboration.

CAJ and the Lemon Hill Job Center will provide in-person counseling and classroom instruction for the students. Because manufacturing instruction is a very hands-on experience, students must participate in person. Elements of employer recruitment, student placement, and follow-up can and will be done in-person, online, or via telephone. Establishing solid relationships with employers is critical to ensuring students' placement and success. Similarly, following up with the students during the initial 90 days following placement will help address challenges the students may experience in a new work environment.

Strategies To Ensure Skills Development & Employee Retention

Skills Development

CAJ developed the curriculum framework for the manufacturing pre-apprenticeship programs aligned with the Society of Manufacturing Engineers (SME) core competency model for the Certified Manufacturing Associate (CMfgA) and Certified Manufacturing Technologist (CMfgT) programs. The CAJ manufacturing utilizes online instructional materials on SME ToolingU instead of textbooks. SME ToolingU is an online learning management system that includes instructional materials, assessment, and progress tracking capability. Much of the SME ToolingU curriculum is also aligned with the National Metalworking Skills Institute (NIMS) or American Welding Society (AWS) standards to prepare students for certifications offered by the organizations. The training and learning materials are reviewed twice annually in occupational advisory committee meetings with input from industry partners to ensure skills learned are relevant to employment. Some program certifications align with standards established by the Occupational Health and Safety Administration (OSHA) Outreach Training programs such as the 10-Hr. Cal/OSHA General Industry Safety and Health training card program and Forklift Operator Certification.

The skills learned in the manufacturing programs are offered through an in-person and hands-on learning experience. The Instructional modality is a combination of classroom instruction, supervised computer lab (SME ToolingU or CAD/CAM software), demonstrations, and application of skills in manufacturing lab projects. Instructional methods model documentation and processes typical in a modern manufacturer, providing students with the opportunity to apply trade skills and learn organizational practices expected in a modern manufacturing environment. Class sessions are 6-7.5 hours, four to five days per week for the duration of the course block, with a 90% attendance requirement, simulating the demands of working full-time in an industrial environment.

Learning in the program is assessed using computer-based testing, simulation exercises, skill demonstration evaluations, applied projects, and certification testing. The manufacturing courses incorporate a custom series of SME ToolingU learning modules aligned with the lab and lecture topics. Each of these learning modules requires an assessment test that participants must pass to complete the module. An SME ToolingU completion certificate is issued once the student completes the series of modules as proof of competency in the subject matter. To complete the program successfully, students must achieve a 75% overall mastery score. The mastery of individual industry certification exams is governed by the accrediting organization and may vary by organization but typically range from 70%-80%.

This work plan proposes to offer six training options to Rancho Cordova residents. These classes will meet the City of Rancho Cordova's goal to implement a Workforce Development Certification Program, train, upskill, and place Rancho Cordova residents who are unemployed or underemployed because of the pandemic in growth industries in need of trained workers in the key sector of Manufacturing. This proposal offers entry into the new 900-hour Manufacturing Technician Program for the Welder Specialty Track or to take one or more of the five Manufacturing Technician component blocks as stand-alone courses. The six options are:

- Forklift Operator Class
- Material Handling and Logistics
- Introduction to Manufacturing
- Electro-Mechanical Assembly
- Welding Fabrication I
- Manufacturing Technician -Welder Specialty Track (13 components, including the courses listed above)

Please refer to Table 4 below for a summary of the course prerequisites, assessment requirements, duration, and certificates earned. Detailed descriptions of each course and a diagram of the Manufacturing Technician Program are available upon request.

Table 4 -Manufacturing Pre-Apprenticeship Courses

Course Title	Prerequisite	Assessment	Hours	Certificates
Single Day Course				
Forklift Operator*	None	Workkeys	7.5	• Forklift Operator Certification
Manufacturing short-term 2-3 Week Manufacturing Technician Component Courses				
Material Handling & Logistics	Forklift Operator Certification for Class I & IV vehicles	CASAS Scores: Reading: 239Math: 236	40	• SME-ToolingU Completion Certificate • CAJ Program Completion Certificate
Electro-Mechanical Assembly	Introduction to Manufacturing	CASAS Scores: Reading: 239Math: 236	40	• SME-ToolingU Completion Certificate • CAJ Program Completion Certificate
Introduction to Manufacturing*	None	CASAS Scores: Reading: 239Math: 236	80	• 10-Hr. Cal/OSHA GI Safety & Health Card • SME-ToolingU Completion Certificate • SME CMfgA • CAJ Program Completion Certificate
Welding Fabrication I	Introduction to	CASAS Scores:	90	• SME-ToolingU

	Manufacturing	Reading: 239Math: 236		Completion Certificate ● CAJ Program Completion Certificate
Full 9-Month Manufacturing Technician Program				
Manufacturing Technician -Welder Tack	None	CASAS Scores: Reading: 239 Math: 236	900	● Forklift Operator Certification ● 10-Hr. Cal/OSHA GI Safety & Health Card ● SME-ToolingU Completion Certificates ● SME CMfgA & CMfgT ● CAJ Program Completion Certificate
*Foundational Prerequisite Courses				

Employee Retention

Recognizing that Rancho Cordova residents spend an average of 26.9 minutes traveling to work (US Census QuickFacts), SVMA will focus its employer outreach efforts on those manufacturing employers within a 10-mile radius of Rancho Cordova, including the communities of Rancho Cordova, Folsom, and unincorporated Sacramento.

SVMA has a comprehensive database of employers for the 7-county region and subscribes to labor market reports from EMSI/Burning Glass which allows SVMA and CAJ to focus on those employers actively recruiting within the targeted communities.

SVMA and the Lemon Hill Job Center will use the combined data/reports to contact employers regarding employment opportunities for the Manufacturing Training Program for Rancho Cordova Resident participants. Activities include scheduling interviews and following up with the program graduates and their employers to ensure success. Ensuring program graduates' success during the first three months with monthly calls is critical, so they pass probation. After that, SVMA & Lemon Hill Job Center staff will follow up quarterly.

Past Performance and Planned Outcomes

Workforce Development Employment & Training Services Program Experience

CAJ launched the Manufacturing Program in 2020 with CARES Act funding as Workforce Development Certification Program to train, upskill, and place individuals who have had their employment disrupted by the pandemic in the manufacturing industry. Manufacturing has been identified as a key area of growth in the region. The CAJ Manufacturing program is a "boot camp" style of training. In 90 contact hours over a few weeks, successful students learn entry-level skills and certifications to prepare them for an entry-level position in the manufacturing industry. Successful students earn (1) Forklift Operator Certification, (2) 10-hr. Cal/OSHA General Industry Safety and Health Card, (3) SME ToolingU Certificate, (4) CAJ Manufacturing Program Completion Certificate, and (5) are prepared to earn the Society Of Manufacturing Engineers (SME) Certified Manufacturing Associate (CMfgA) exam. The Manufacturing Program provides skills for immediate job placement and entry into an industry-sponsored

apprenticeship program. It is also a prerequisite for the new Manufacturing Technician Program CAJ is launching in the Fall of 2022.

Key Benchmarks And Outcomes

CAJ Manufacturing Program has served 67 individuals, issued 65 Forklift Operator Certifications, and 67 10-hr. OSHA Safety and Health Cards, 49 SME ToolingU Certificates, and 19 students elected to test and earn SME CMfgA certification. CAJ has also issued an additional 22 Forklift Operator Certifications to individuals elected to take the forklift operator class component of the program separately. CAJ is qualified to meet the Key Benchmarks listed in the NOFA:

- 100% of participants who started the program (enroll/attend a minimum of two days)
- 75% of participants completed training
- 50% of participants completed the training and obtained a certificate or credential
- 35% of participants have entered employment "undefined" 6 & 12 months after program completion
- 25% of Participants have entered into "training related" employment 6 & 12 months after program completion

Program Incentives for Rancho Cordova Residents

Under the Manufacturing Training Program for Rancho Cordova Residents, bonuses will be provided to the graduates after all have passed their employee 90-day probation period with the employer.

Strategy For Monitoring, Measuring Performance, And Outcomes.

Rancho Cordova residents determined to be WIOA Title I eligible, not case managed by FCCP, will be enrolled and monitored by the Lemon Hill Job Center staff. The job center staff will provide counseling, enrollment, job placement, and monitoring services for qualified students up to one year after graduating. Job Center staff will communicate with SVMA staff to ensure that bonuses are paid after 90 days and will communicate quarterly with SVMA regarding students' employment status.

Rancho Cordova residents that are not eligible or unwilling to enroll in WIOA Title I will be enrolled as any other student at Charles A Jones. However, SVMA staff will be responsible for placing the students with the employers, paying the bonus after 90 days, and monitoring their employment for one year.

CAJ staff, SVMA, and Lemon Hill Job Center will provide monthly reports to Angela Hatter, outlining our metrics for meeting identified program goals. Reporting will include monthly marketing reports, social media reports, candidate interest, enrollment, the status of each class, data regarding students to ensure consistent messaging and communication, employer outreach, and student placement with employers.

CAJ can provide quarterly reports to the Rancho Cordova staff to ensure that appropriate and timely data is captured and reported.

Staff Capacity

CAJ employs 32 staff, including three administrators, a school office, a job center, and facilities for academic and career technical education teachers. Currently, one full-time instructor will oversee the Regional Manufacturing Training Center (RMTC) and any additional part-time RMTC instructional staff.

SCUSD Non-Discrimination Policy

Charles A, Jones Career and Education Center operates under the Sacramento City Unified School District, which prohibits discrimination, intimidation, harassment (including sexual harassment), or bullying based on a person's actual or perceived ancestry, color, disability, race, or ethnicity, religion, gender, gender expression, gender identity, immigration status, national origin, sex, sexual orientation, or association with a person or group with one or more of these actual or perceived characteristics. For questions or complaints, contact Equity Compliance Officer and Title IX Coordinator: Stephan Brown – 5735 47th Avenue, Sacramento, CA, 95824; 916.643.9425; stephan-brown@scusd.edu

Project Expected Timeline

The timeline below assumes that CAJ has executed a contract with the City of Rancho Cordova by December 31, 2022. Additional short-term classes may be offered, depending upon the interest level and adequate financial support to continue the program.

Table 5 -Project Expected Timeline

Milestone	Date	Prerequisite Milestone/Contingency
Contract Executed	December 2022	Contract Awarded
Identify & Outreach to Key CBO Partners	December 2022 Ongoing	Contract Executed
Update Manufacturing Cares Website	December 2022 Ongoing	Marketing Strategy
In-House Marketing Flyers to CBOs	December 2022 Ongoing	Marketing Strategy
Develop Marketing Plan; Social Media Ads Schedule; Professional Marketing Flyers; Career Fairs; Other identified strategies	January 2023 - Ongoing	Marketing Strategy
Weekly Participant Orientation, Assessment, and Registration	December – 2022 Ongoing	Orientation, Assessment and Registration for Participating Rancho Cordova Residents
Start of Instructional Period	January 9, 2023	Registration for Participating Rancho Cordova Residents
Forklift Operator Certification Training (1 Day)	24 classes offered from January 9, 2023 – September 30, 2024	Enrolled Rancho Cordova Residents
Material Handling & Logistics	3 Cohorts offered from January 9, 2023 – September 30, 2024	Participant holds valid Forklift Operator Certification; Orientation, Assessment and Registration
Introduction To Manufacturing	3 Cohorts offered from January 9, 2023 – September 30, 2024	Participant has successfully completed Orientation, Assessment, and Registration
Electro-Mechanical Assembly class	3 Cohorts offered from January 9, 2023 – September 30, 2024	Participant has successfully completed Introduction to Manufacturing; Orientation, Assessment and Registration

Manufacturing Technician -Welder Specialty Track Program	3 Cohorts offered from January 9, 2023 – September 30, 2024	Participant has successfully completed Orientation, Assessment, and Registration
Table 5 -Project Expected Timeline(Cont.) Welding Fabrication I	3 Cohorts offered from January 9, 2023 – September 30, 2024	Participant has successfully completed Introduction to Manufacturing; Orientation, Assessment and Registration
End of Instruction Period	September 30, 2024	
Participant Job Placement activities	February 2023 to December 2024	Placement activities for Rancho Cordova participants who have completed a Regional Manufacturing Training Center program
Tracking Participant employment and Issuing of Placement Bonuses	May 2023 to December 2024	Placed with employer - must retain the position for 90 Days
The tracking period ends for all participants	December 31, 2024	
CAJ, Lemon Hill Job Center & SVM draft final report to the City of Rancho Cordova	January 2025	Final Report generated

5. Sources and Uses of Funds

The total proposed budget for the Manufacturing Training Program for Rancho Cordova residents is $277,529.04. A budget summary is in Table 6, Aggregate Proposed Program Fees. Table 7 provides a detailed breakdown of the Proposed Training Scholarship and Placement Bonuses to be paid to program graduates 90 days after the students have been placed with an employer and successfully passed their probation period. The CAJ refund policy for students is available upon request.

The budget for training and scholarships assumes up to 50 students enroll in forklift training, 20 enroll in each of the modular component courses, and 10 students enroll in the manufacturing technician training program. The budget proposes adding supplemental Manufacturing Skills Instructional staff to increase faculty capacity to offer more modular classes and support additional outreach efforts in support of the Rancho Cordova program. CAJ and SVMA propose some flexibility in the budget for training and scholarships, depending on students' interests.

SVMA will be responsible for administering the placement bonuses and transportation stipends.

SCUSD's Indirect Costs of $9,436.85 cover SCUSD overhead costs for the operation and maintenance of facilities. SCUSD's Indirect Costs fee is a standard fee for any contract for the use of school district facilities.

Table 6 -Aggregate Proposed Program Fees

Description	Qty.	Price Each	Total
Scholarship cost per student by program: Forklift = 50 @ $165/each student Introduction to Manufacturing; Material Handling and Logistics; Electro-Mechanical Assembly = 20 @$600 each Welding Fabrication I = 10 @$1,360/each Manufacturing Technician = 10 @ $6,760/each	*	*	$101,450.00

Placement bonus cost for students by program: Forklift = 50 @ $200/each student Introduction to Manufacturing; Material Handling and Logistics; Electro-Mechanical Assembly = 20 @ $300/each Welding Fabrication I = 10 @$450/each Manufacturing Technician = 10 @$1,500/each	*	*	$35,500.00
Manufacturing Skills Instructor (.5 FTE for 18 mos.)	810 Hrs.	$44.62/hr.	$36,142.20
Marketing	Flat Fee	$25,000.00	$25,000.00
SVMA • Executive Director • Admin Support to the executive director • Accounting Support to manage bonuses & subcontracts • Transportation Stipends** o 9-month passes = 10 @ $900/ea. o 1-month passes = 30 @ $100/ea. Subtotal	600 Hours 1,000 Hours 60 Hours	$45.00/hr. $25.00/hr. $100.00/hr.	$27,000.00 $25,000.00 $ 6,000.00 $12,000.00 $70,000.00
Sub Total			$268,092.20
SCUSD Indirect Costs		3.52%	$9,436.85
Total Project Fee			$277,529.04

*See Table 7 for a proposed breakdown of student fees.

** Transportation stipend estimated by the cost of Adult Monthly Rapid Transit Passes @$100/month. If preferred, gas cards will be issued in the equivalent amount per student per program.

Table 7 -Proposed Training Scholarship and Placement Bonuses			
Description	**Up To Qty.**	**Price Each**	**Total**
Manufacturing Technician- Scholarship	10	$6,760.00	$67,600.00
Manufacturing Technician - Placement Bonus	10	$1,500.00	$15,000.00
Transportation Stipend: Based on $100/month @ 9 months - Rancho CordovaBus Pass (Gas card provided, if preferred) = $900 / each student	10	$900.00	$9000.00
Manufacturing Technician: Combined costs per student: $ 9150.00			
Welding Fabrication I - Scholarship	10	$1360.00	$13,600.00
Welding Fabrication I – Placement Bonus	10	$450.00	$4,500.00
Transportation Stipend: Based on $100/month @ 1 month - Rancho CordovaBus Pass (Gas card provided, if preferred) = $100 / each student	10	$100.00	$1,000.00
Welding Fabrication I: Combined costs per student: $1910.00			
Component Course – Scholarship per course • **Introduction to Manufacturing** • **Material Handling and Logistics** • **ElectroMechanical Assembly**	20	$600.00	$12,000.00
Component Course – Placement Bonus	20	$300.00	$6,000.00
Transportation Stipend: Based on $100/months = $100 @ 1 month - Rancho CordovaBus Pass (Gas card provided, if preferred) = $100 / each student	20	$100.00	$2,000.00
Component Courses: Introduction to Manufacturing; Material Handling and Logistics; or Electro-Mechanical Assembly Combined costs per student: $1,000.00			

6. Conflict of Interest Statement

Charles A. Jones Career and Education Center affirm, to the best of their knowledge, that there exists no actual or potential conflict of interest with family, business, or financial interest and the services provided under this Proposal. In the event of a change in either private interest or services under this Proposal, any question regarding possible conflict of interest which may arise as a result of such change will be brought to the attention of the City of Rancho Cordova in writing.

7. Exceptions

Stipends

Applying lessons learned by prior experience, SVMA and CAJ determined that when given a course completion stipend, students were less interested in a manufacturing career than the stipend. As mentioned in the Incentives for Rancho Cordova Residents section of this proposal, bonuses will be provided to the graduates after they have been placed in employment and passed their employee 90-day probation period. CAJ and SVMA do not intend to award student stipends or graduation bonuses after graduating or employment retention at the first anniversary, as suggested by the examples in the NOFA.

Tracking Benchmarks

This proposal includes tracking key benchmarks for 6 and 12-month benchmarks after the participant completes training. The NOFA indicated an additional benchmark at 18 months which goes beyond the term of this short-term grant.

8. Supportive Information/References

Project References

Exhibit 1: Charles A. Jones Career and Education Center

SETA RPI Grant Contact:
Roy Kim, Deputy Director
925 Del Paso Blvd
Sacramento, CA 95815
roy.kim@seta.net
916-263-3814

City of Sacramento CARES Grant
Ms. Denise Malvetti, Economic Development Manager
915 I Street
Sacramento, CA 95814
Dmalvetti@cityofsacramento.org
916-808-7064

Exhibit 2: Sacramento Valley Manufacturing Alliance

2018/2019 Pre-Apprenticeship Program
Amy Schulz -Dean of Business and Technology
Sierra College
5100 Sierra College Blvd.
Rocklin, CA 95677
(916) 660-7802
aschulz1 @ sierracollege.edu

2020/2021 CAI Apprenticeship Grant
Connie Ayala
Director, American Apprenticeship Initiative
American River College
Workforce Development
Lower Library
ayac@arc.losrios.edu
(916) 484-8694

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City of Sacramento CARES Grant
Ms. Denise Malvetti, Economic Development Manager
915 I Street
Sacramento, CA 95814
Dmalvetti@cityofsacramento.org
916-808-7064

October 20, 2022

City of Rancho Cordova
Economic Development
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Re: WORKFORCE RECOVERY PROGRAM: Proposal to Administer Workforce Development Training for City of Rancho Cordova

ATTN: econdev@CityofRanchoCordova.org,

This letter serves as Cyber Proud's proposal submission to provide workforce development services and training for the City of Rancho Cordova focused on information technology and cybersecurity training.

Name of Project: Cyber Proud Pre-Apprenticeship Program

Cyber Proud will serve as lead applicant, working in collaboration with Apprentice Now as the training provider delivering technology and cybersecurity pre-apprenticeship training. This collaborative proposal will rely upon existing relationships with employers to provide linkages to employment within the region. The activities described within this proposal will result in the training of 20 individuals from the City of Rancho Cordova. Each will complete a comprehensive pre-apprenticeship training focused on either infrastructure support/networking or cybersecurity in preparation to complete an industry recognized CompTIA certification, career development services and job placement.

On behalf of Cyber Proud, and our partners, we are pleased to present this proposal to the City of Rancho Cordova. Thank you for this opportunity. We look forward to discussing this in more detail and working with you.

Sincerely,

Coleen Morehead
Founder/CEO, Cyber Proud
coleen@cyberproud.org

cc: akobe@cityofranchocordova.org

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QUALIFICATIONS AND EXPERIENCE

Cyber Proud, a Sacramento based 501(c)3, will serve as lead applicant for this program. Their network of employers will act as a conduit to employment. Cyber Proud will recruit and source candidates through their network of local community-based organizations, job centers under the Sacramento Employment Training Agency, and local community colleges and universities. Working in collaboration with Apprentice Now as the primary technical training provider delivering cybersecurity training program. This collaborative proposal will rely upon our existing relationships with public and private entities such as SMUD, CalHR, Accenture, Omnistruct, Found IT Data, and CPS HR Consulting.

KEY STAFF

Coleen Morehead, EdD, Founder/CEO Cyber Proud
Location: 1900 Point West Way, #104, Sacramento, California
Email: coleen@cyberproud.org
Phone:(530) 870-1135

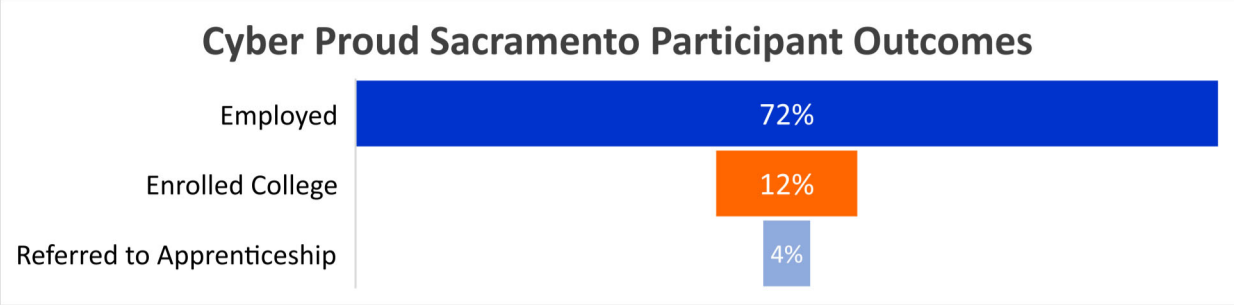
Cyber Proud Inc's mission is focused on revitalizing communities through an inclusive economic and workforce development. Cyber Proud was launched in 2019 in Sacramento, California, incorporating as a nonprofit in 2020. Cyber Proud has served as conduit between training providers and employers to help cultivate a new generation of technology professionals. As Founder and CEO of Cyber Proud, Dr. Morehead used her experience with the Sacramento ICT Council to mobilize her network to address workforce shortages. Her expertise includes career pathway development, curriculum development, developing and implementing apprenticeship programs, employer engagement, technical assistance. Dr. Morehead serves on the Sacramento Coalition for Digital Inclusion as Co-Chair for Digital Literacy and as a member of the Metro Chamber Policy & Work Ready Committee. Backed by a Doctor of Education and a Master of Public Administration, Morehead is skilled at envisioning new approaches to workforce development and training.

Notable Current Projects:

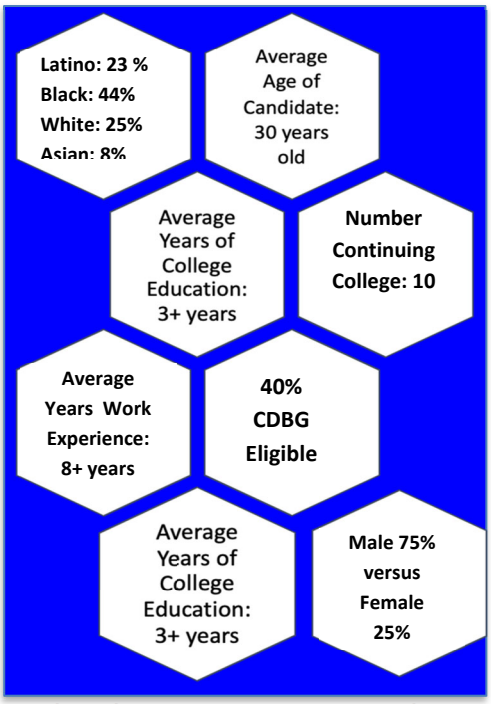
- Aggie Square Workforce Development Initiative ($94K): Dr. Morehead is assisting the City of Sacramento in guiding the creation of a Coalition and Organizational Framework to ensure workforce development efforts. Aggie Square will expand the University of California, Davis's Sacramento campus, creating a state-of-the-art hub for research, innovation, and education. The purpose of this effort is to develop a framework for the workforce initiative to be known as the Aggie Square Workforce Development Initiative to take into consideration the negative economic impacts that the COVID-19 pandemic had on individuals and include diversity and broad community representation as key components.

- California Mobility Center Feasibility Study ($160K): Performed a study to assess Sacramento State's capacity, capabilities, and needs to create a sustainable partnership for the CMC. The study will be used to identify faculty expertise, advance academic programming and research capacity that includes creating and promoting experts in clean energy and mobility technologies.

Cyber Proud as a Sacramento based nonprofit organization was the recipient of a CARES grant from the City of Sacramento during 2020 ($330K) and 2021 ($333K). Collectively Cyber Proud was successful in serving over 70 City of Sacramento residents.
75



The chart to the right shows demographic data for participants under the City of Sacramento grant.



Cyber Proud delivered career readiness, technical training in combination with both the pre-apprenticeship via Apprentice Now (formerly Woz Enterprises) and industry certification via CompTIA CertMaster using our own instructor to facilitate learning and exam preparation. Services included hands-on learning, specialized career workshops, resume preparation, mock interviews, and job placement services. Each participant was also connected to our employer mentors and case manager for individualized services. Over 70% are now employed, with others having completed their degrees recently.

Cyber Proud is currently running a cybersecurity career development program under a grant ($20K) from Safe Credit Union. Currently 14 veterans are signed up to receive CompTIA certification training, as well as job placement and career services. As well the City of Sacramento will be funding a cohort of 10 interns to receive similar services beginning this November. Services will include certifications, paid OJT, and job placement.

Chris Coleman, President, Apprentice Now
Location: Austin, Tx
Email: chris.coleman@apprenticenow.com
Phone: (520)-954-0660

Chris Coleman is President of Apprentice Now, a national provider of Registered Apprenticeships in high-demand technical careers. In this role, Chris is focused on creating pathways to sustainable employment that are debt-free and fully aligned to the needs of modern companies. Prior to Apprentice Now, Chris served as President of Woz U, a technology-based education start-up that is enhancing the Education as a Service model, empowering students with effective and affordable career paths in technology. There, he led initiatives to advance individualized learning systems with programs that accelerate professional development and instill skills for their students to distinguish themselves in the workforce. Previously, Chris was the Director of Software Engineering for HealthTrio, where he led development of HealthTrio Connect, a SaaS healthcare platform serving more than five million members. Prior, he was Vice President at Mindplay, an edtech company, where he led development of Virtual Reading Coach, a K-12 online learning platform for struggling readers. Virtual Reading Coach was an award-winning pioneer of adaptive and individualized learning in the literacy space. Chris spent his early career as a Software Engineer for Archon Technologies, later acquired by 3M. Chris graduated with a B.S. in Computer Science from the University of Arizona.

Apprentice Now is a national provider of Registered Apprenticeships and Customized Train-to-Hire programs. Apprentice Now partners with technology companies looking to hire qualified applicants and provides customized training programs to align with their desired skills. Apprentice Now supports businesses with well qualified candidates and a diverse community of learners. Apprentice Now offers training for high-demand occupations in Cyber Security, Software Engineering, Data Science, and more. Below is a list of employers some of which have a presence in Sacramento (www.apprenticenow.com)

Notable Projects:

- Flagship Apprenticeship partner of large-scale national employers:
  - Infosys
  - Cognizant
  - HCL Technologies
- Product lead for multiple award-winning educational software systems:
  - Woz U Learning Platform
  - MindPlay Virtual Reading Coach
  - FLRT - a Fluent Reading Trainer
  - RAPS360 Reading Diagnostic

All Mentors and Advisors Serve as Volunteers. They providing all services in-kind to Cyber Proud. Services include mentoring, career workshops, demos, guided projects, job placement, resume preparation, etc.

Michael W. Reese, President and CEO Found IT Data Cybersecurity.
Michael has been a mentor to Cyber Proud for over 2 years. He has over 26 years of experience in Information Technology serving in senior executive positions encompassing security, operations management, project management, process change and development, business development as well as service and product management functions. A leading expert on IT â€“ control and operations, Mr. Reese is a frequent speaker on topics including security breaches, big data analytics, audit and compliance, and IT forensics. A Certified Cybersecurity Specialist, licensed as a Certified Computer Forensics Investigator, Certified Information Systems Security Professional, Certified Hacking Forensics Investigator, Certified Cyber Intelligence Investigator, Certified Forensics HiTech Investigator, Certified Counterintelligence Threat Analyst, and Certified Fire and Explosion Investigator. Mr. Reese has assisted both the DOJ and FBI on several matters and worked with High Tech Crime Units in Portland and Sacramento. Mr. Reese has given expert witness testimony in hearings, depositions and at trial. Prior to Mr. Reese IT career, Mr. Reese spent 11 years in Law Enforcement as a Deputy Sheriff with San Diego County and Riverside County Sheriff Department. Mr. Reese has served as an industry advisor and mentor to Cyber Proud advancing awareness of the importance of cybersecurity and challenges for small businesses to ensure data security. In particular Mr. Reese's expertise with small urban business and issues around baseline digital literacy will help advance this proposal.

George Usi, Omnistruct Inc, Co-Founder and CEO
George provides mentoring and networking for Cyber Proud trainees. He has 25 years of experience working with large-scale enterprise businesses and service providers including Internet stability research and advocacy work with some of the scientists who created the Internet. George started Omnistruct as a people-centered cybersecurity management company for the other 98% of businesses designed to build a reasonable blueprint in privacy, security, and risk for CEOs so they can affordably illustrate diligence in cybersecurity governance. In addition to his role as CEO, he Co-Chairs the California IPv6 Task Force, a think tank of scientists and internet pioneers that are advocating upgrades of the internet numbering system using a people centered movement. George is also on the board of advisors for Secure The Village in Los Angeles. George was recognized by his peers as an Internet Pioneer for the Metronet6 project and its mission of designing interoperable first responder networks that help emergency workers respond to disasters. An award-winning leader in Internet governance, George has a bachelor's degree from CSU Sacramento and graduated from the Stanford Graduate School of Business Knight School of Management SLEI/LBAN Certificate Program.

Sean McNally, McNally's Consulting, Cyber-Guild Advisor, Northern California Cyber Competition Coordinator will serve as program advisor.
Location: Rancho Cordova**,** California
Email: swmcnall@gmail.com
Sean has served as advisor for CyberPatriot/Cyber Guild, a National Youth Cyber Education Program created by the Air Force Association to inspire K-12 students toward careers in cybersecurity or other science, technology, engineering, and mathematics (STEM) disciplines critical to our nation's future. Locally, the program has served 1000s of students from the Sacramento region. This network of cybersecurity experts and educators are an invaluable resource for Cyber Proud to connect with young new talent. At the core of the program is the National Youth Cyber Defense Competition, the nation's largest cyber defense competition that puts high school and middle school students in charge of securing virtual networks. Other programs include AFA CyberCamps, an elementary school cyber education initiative, a children's literature series, CyberGenerations –a senior citizen cyber safety initiative, and a Tech Caregivers program designed to encourage cyber-savvy volunteers to give back to their communities. (https://www.uscyberpatriot.org/)

Nathan Barnes, Lead Instructor, Cyber Proud
Nathan Barnes, State of California: System Administrator, is a cybersecurity enthusiast, with a diverse educational & work experience background. Part of his strong background includes managing & leading major security projects to completion as well as finding creative solutions to complex problems. He is a firm believer in both learning by doing & leadership through service, constantly maintaining a positive attitude to bring out the best in those around him. An effective communicator and leader who works to maintain and manage projects to completion while ensuring data integrity and privacy, optimal and secure network connections, as well as ensuring continuity of business operation. He has experience working for local businesses & nonprofits in the capacity of a vCISO as well as a senior cyber security instructor. Nathan currently resides in Rancho Cordova where he is employed by the State of California under the Department of Digital Innovation. Nowadays, Nathan is preoccupied with pioneering information security policies for the first 'all-Apple' department in the State's history while helping to ensure California leads the nation in developing more equitable access to digital resources & information for all Californians.

CPS HR Consulting, Senior Leader
Location: Sacramento, California
Email: masher@cpshr.us
CPS HR Consulting has been assisting organizations with their talent management needs for over 35 years. We have unique expertise in the areas of organizational strategy, recruitment and selection, training and development, and organization and workforce management. Our core competency is knowledge of and expertise in the public sector.

Earn & Learn Employer Network Activated (ELENA) formed in 2019, has a proven track record of aligning career demand with a skills-based curriculum to provide Work-Based Learning (WBL) for all. Access will allow training providers to collaborate and forge new alliances and partnerships across organizations. The onboarding structure makes it easy to get participants in the workplace to gain the hands-on learning experience they need. Communicating directly with employers to identify the right work-based learning opportunity for participants is streamlined via ELENA/Cyber Proud alliance. ELENA was used in partnership with Cyber Proud to streamline the coordination of WBL. Participants gained access to get connected to a wide range of WBL opportunities including internships, mentoring, and job placement. ELENA is used to help secure commitments from regional employers. . (earnlearn.us/)

NAME OF PROJECT:

Cyber Proud Cybersecurity Pre-Apprenticeship Program

BACKGROUND AND PROJECT NARRATIVE

Nontraditional jobs hold the promise of new and high-potential career paths. This could mean significant new opportunities for women and other underrepresented individuals in nontraditional jobs to access well-paid, career-track jobs that provide economic security and enable them to support themselves and their families. Ensuring that more women are aware of and supported in entering nontraditional jobs is critical not only to achieving economic equity for women and their families but also to building a competitive workforce.

In the United States, there are around 879,000 cybersecurity professionals in the workforce and an unfilled need for another 359,000 workers (Duffy, 2021). The US Bureau of Labor Statistics projects that Information Security Analyst will be the 10th fastest growing occupation over the next decade, with an employment growth rate of 31% compared to the 4% average growth rate for all occupations. Global demand for computer science, cybersecurity, and information security professionals and personnel has been mounting for decades and has reached a critical point. Burning Glass reports that 13% of all IT jobs today are found in security (2019). The shortage of cybersecurity professionals is well documented and reported 2021, there were 72,000+ open job positions in California and 503,000+ positions nationally.

Furthermore, it was projected that business losses from cybercrime would top $6 trillion in 2021 according to a report by Cybersecurity Ventures. Up until the last few years attacks have been targeted on larger businesses. While the disruption of the country's largest pipeline for refined oil products caught many people by surprise. The average payment by victims of ransomware jumped 31% in the second quarter compared to the same time period in 2020, according to the U.S. Federal Bureau of Investigation. The most vulnerable are small businesses because they lack the resources. In particular healthcare, small government agencies, financial institutions, education and energy and utility companies are at the greatest risk.

Conversely, the number of unfilled IT and cybersecurity jobs is expected to grow by 350 percent to 3.5 million in 2021 contributing to greater risks. In light of the ongoing threats and tech talent gap perpetuated by the devastating impacts of Covid-19. Of 72,123 current California cybersecurity job openings, 95% are in the private sector. There needs to be an emphasis on critical engagement, strong ties, and connections with industry to design education and workforce development programs to meet these significant workforce needs. We can better understand what industry seeks from

prospective job candidates in valuable skill sets for filling current vacant positions and assist employers to find appropriately prepared job candidates ready for hire.

Despite various efforts to address the labor shortage, there remains a lack of apprenticeship programs in areas with high demand for Cybersecurity professionals. There are limited Cybersecurity pre-apprenticeships or registered apprenticeship programs in the Sacramento Metropolitan Statistical Area (MSA) which has a population of 2.35 million residents (Data USA, 2021). The closest Cybersecurity pre-apprenticeship training programs are located in the Bay Area in the cities of San Francisco, Fremont, and San Jose (CA Department of Industrial Relations, 2021).

WORK PLAN

Cyber Proud will provide access to a career training program, industry-recognized certification program, career readiness workshops, resume preparation, job placement, industry mentoring, job fair, and work-based learning experiences to adults in the City of Rancho Cordova. Apprenticeship programs align to entry-level careers in high-demand technical roles. Apprentice Now's training programs are synchronous full-time training with qualified faculty, and ample mentorship. Each participant will be provided individualized learning plans and remediation strategies with one-on-one mentoring to ensure adequate progress is achieved. Apprentice Now's recruitment and onboarding process is designed to open alternate sources of talent, and diversity to the hiring company. To do this, Apprentice Now is working Cyber Proud and its partners to attract underrepresented adults like those to be served under this proposal.

The goal of this program is to provide all participants with relevant industry knowledge and capability that will prepare them to enter the workforce at an entry-level IT or higher-level Cybersecurity position. This proposal is designed to accommodate 20 adults above the age of 18. This will include enrollment in advanced-level cybersecurity with Apprentice Now, and access to an industry-recognized certification with exam preparation. This program is designed to mitigate the impacts of Covid-19 by targeting underrepresented populations.

Apprentice Now's curriculum process is built upon a modular content structure allowing flexibility and resiliency in the training materials. Apprentice Now's content is delivered through our proprietary online learning platform, designed to provide simulations of real-world scenarios. Apprentice Now's curriculum is designed by industry experts, in collaboration with our hiring partners.

STAFFING AND SUPPORT POSITIONS

Cyber Proud will provide operational and administrative services. The **Director** will oversee all program activities, will direct staff and contractors to ensure that day to day activities and program objectives are met. Will assess candidates, help facilitate/coordinate career workshops, and job placement services. Will manage the entire program coordination of staff, perform regular reporting, direct grant and financial oversight of all services, and will prepare all reporting for the City of Rancho Cordova for the term of the grant.

Project Coordinator will perform support activities as needed including enrolling participants, working directly with training provider to recruit, place and monitor progress. Will coordinate with subcontractors, and staff to ensure that each participant is equipped with training materials, schedule career events, and communicate with employers. Will also provide technical assistance for ELENA to support employer engagement and job placement activities. Will maintain an employer database with pledges for work-based learning experiences including career workshops and fairs, internships, and resume preparation and review, referrals, and job placement.

Employment Specialist, Mentoring, and Career Counseling will be provided by Clear Strategies. Services will include providing customized career workshops and training that encompasses skills training, resume preparation, leadership development, and post-program placement opportunities; networking with employers, providing a career development plan and curriculum, and follow up on each job placement after the training.

Apprentice Now is a national provider of Registered Apprenticeships and Customized Train-to-Hire programs. Apprentice Now partners with technology companies looking to hire qualified applicants and provides customized training programs to align with their desired skills. Apprentice Now is supporting business with well qualified candidates and a diverse community of learners. Their program is California Division of Apprenticeship Standards approved to support alignment to the following careers: Application Support, Application Developer, End User Computing, Cyber Security Support, Software Testing.

PROJECT DESIGN

Additional supplemental services will be provided to include workforce readiness training, individualized career services, and industry mentoring. Each participant will be guided to develop a personalized career development plan working in partnership with a mentor, employment specialist, and our industry partners with the intent of ensuring that each secures employment once training is complete.

Activities for this career program are sequenced to occur over a year term. The detailed timeline will accommodate 20 individuals per year per cohort. The program activities are sequenced over a 9–12-month session, with training activities beginning as early as January 2023. The entire program is projected to be completed by the end of 2023.

Intake Process (Cyber Proud)
Sourcing and Recruiting Candidates: Through our network of CBOs, and education providers including the City of Rancho Cordova, Cyber Patriot, and Cosumnes River College. Will utilize various marketing channels including social media and email to recruit candidates for the program. All candidates are required to submit an application and have an interview with staff, coach, and mentor.

Evaluating Candidates: All applicants are required to submit an agreement and consent form in advance of acceptance. All candidates are required to submit a resume with their application which will be assessed by mentors and instructors.

Technical Assessments: All candidates are required to take a technical assessment to evaluate their competency level for appropriate placement in training tracks.

Orientation: Onboarding to access digital learning platforms. Set Up a Login for admission into the learning portal.

Program's Model of Service Delivery for Pre-Apprenticeship Training
Apprentice Now's curriculum process is built upon a modular content structure allowing flexibility and resiliency in the training materials. Apprentice Now's content is delivered through our proprietary online learning platform, designed to provide simulations of real-world scenarios. Apprentice Now's curriculum is designed by industry experts, in collaboration with our hiring partners.

The program is designed to be delivered over 8-10 weeks term. This program will include a pre-apprenticeship program offering one of 2 tracks for up to 20 students. Option to add additional tracks at similar costs.

Infrastructure Support

Infrastructure Support Specialist ensure availability and performance of software and hardware systems. Knowledge of various technical disciplines is required in order to successfully implement and maintain physical, virtual, and cloud systems.

Duties	Day 1 Skills	Technologies
Server Administration	OS Administration	Windows Server
Datacenter Configuration	Linux / Unix / Windows / MacOS	Office 365
OS Administration	ITIL Processes	MacOS
Alerts & Log Monitoring	Incident Management	Unix / Linux
Data Backup	Networks and Security	Powershell
Incident Management	Server Management	SQL Server
Server Administration	Powershell	Amazon Web Services
Hardware installation	ServiceNow	Unix / Linux
Scripting	Hyper-V / VMWare	Office 365
Application Troubleshooting	Active Directory	Powershell
	Sophos Antivirus Management	Hyper-V / VMWare
	Server Monitoring	ServiceNow

Course Sequence

Computer Fundamentals
ITIL Overview
Introduction to Unix
Network and Security
Powershell Scripting
Operational Systems
Windows Server Administration
Storage and Backup
Virtualization
Active Directory
Patch Management
Antivirus
Monitoring
Cloud Computing
Microsoft 365
Datacenters and Servers

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Cyber Security

Cyber Security Analysts help to protect an organization by employing a range of technologies and processes to prevent, detect, and manage cyber threats. This can include protection of computers, data, networks, and applications.

Duties	Day 1 Skills	Technologies
Security Incident Management	Proficient in CS tools	Windows/Unix/Linux
Proxy Server Support	Proxy Server configuration	Active Directory
Vulnerability Assessment	Firewall and VPN management	Powershell and Bash
Penetration Testing	Intrusion Detection Systems	Developer Tools
Alerts and Log monitoring	Intrusion Prevention Systems	Wireshark
Health Checks	Identity and Access Management	AWS & Azure
Reporting	Single Sign-on	Docker
Application Deployment	ITSM processes & tools	Kubernetes
Security Patching	SIEM Tools	Network Scanners – nMap
Securing sensitive data	Systems Analysis	DB Scanners – SQLmap
IAM	Incident Management Tools	

Course Sequence

Computer Fundamentals
Introduction to Cyber Security
Identity and Access Management
Cryptography
Data Security
Infra Security
ITIL Overview
Intro to Unix
Active Directory and Powershell
Security Operations
Cloud Security
Container Security
Application Security
Vulnerability Management
Governance, Risk & Compliance
DevSecOps

apprentice now

Job Readiness and Career Support Services (Cyber Proud)

Cyber Proud will provide support services to assist with career development and job placement once technical training is complete. Additionally CompTIA vouchers for Security+ industry-recognized certification preparation and exam will be provided.

Mentoring: Employers support and training that assist each participant with developing new skills in IT fundamentals, networking, and technical competencies. Each is matched with a mentor and scheduled weekly check-ins.

Resume & Application Review by Instructor: Mentor interview is a secondary session to evaluate each candidate's career goals in advance of placement with support staff, case workers, and eventually one-on-one career planning sessions.

Mentor-Led Activities: Mentor-led Cloud Project will be offered after training is complete. These are small peer group activities. Instructional Coach also offers Office Hours each week during and after training for up to 6 weeks. Certification Exam Preparation is also provided in small group sessions. Each participant receives study materials.

Career Development Workshops Modules

1. Explore Work
- Why Cybersecurity is a Critical Workforce Need?
- Digital Forensics
- You Can Never Have Enough Certs: Which Certifications Have the Greatest Value?
- Career Exploration via Cyberseek

2. Rework
- Demystifying the Job Search: How to Navigate Online Job Search Tools
- The Importance of Leadership: Virtual versus In Person

3. Network
- How to Stand Out with Indeed
- Networking with LinkedIn

4. Getwork
- Resume Preparation for Technology Careers
- Interviewing Techniques
- Follow Through & Time Management
- Organizational Culture & Behavior
- Project Management
- Elements of Leadership

Career & Job Placement (Cyber Proud and ELENA)
Employers are sought to provide work-based learning (WBL) experiences to candidates during the entire length of each cohort. These can include job shadow, internships, apprenticeship programs, etc. Staff will assist with providing Technical Assistance to the ELENA Platform for employers to sign up and in order to coordinate activities. Resumes are reviewed and shared with employers for feedback. Events such as Job Fairs, Meet & Greets, and Webinars will be coordinated with employers. A video Mock Interview of each candidate will be facilitated to ensure that they are prepared and have a 3–5-minute pitch.

PROGRAM PERFORMANCE AND PLANNED OUTCOMES

During training, participants learn and replicate specific skills and techniques in a hands-on environment. Training is sequential and only continues when participants are able to perform what's been covered on their own. In-class quizzes are given at different parts of the day to ensure larger tasks can be performed. Participants will also be given projects to complete independently to ensure overall knowledge transfer occurs. Participants present results and finished projects with instructor feedback/grading. Participants can seek assistance from fellow participants and/or the instructor during projects. Satisfactory project completions are mandatory to move to the next level of training, ensuring skill acquisition and confidence.

Apprentice Now
With over 350 successful hires to date, and a debt-free training solution, Apprentice Now has established a new model for workforce training. During the past year Apprentice Now has served 159 learners that were hired in 2021. Appearance Now has trained 111 Woz U Pre-Apprenticeship training program. With 85 Completing the program, for a 77% completion rate. 64 of those candidates have been successfully hired to a Registered Apprenticeship for a 75% hire rate. Apprentice Now is currently servicing large-scale clients such as HCL Technologies and Infosys in the Greater Sacramento area. As well as, operating 7 distinct technical career paths as Registered Apprenticeships. Apprentice Now has a curriculum developed in collaboration with high-volume hiring partners and training paths that are aligned to Industry recognized certifications, and a live synchronous training model with qualified instructors in our online, technology-assisted, learning platform.

PROJECT EXPECTED TIMELINE

Cyber Proud Pre-Apprenticeship Program Timeline
Term of Contract - 12 Months - January 2022 - December 2022

Dates	Milestone (Metrics of Success)	Milestone/Outcome
Jan-23	Develop a marketing plan designed to increase opportunities for residents of the City of Rancho Cordova.	Distribute promotional materials to ensure a wide range of applicants apply per cohort required of this project.
Feb-23	Recruit through a variety of social media platforms including Facebook, Instagram, Twitter, community-based organizations, job centers, adult education centers, student clubs, Consumes River College, etc.	Using aspects of social media, reach out to the community, churches, and other partner organizations in the City of Rancho Cordova
Feb-23	Participants will complete a job readiness survey and conduct a 30-minute interview with an Instructional Coach and mentor.	Cyber Proud will source, and interview potential candidates with the intention of recruiting 20 candidates.
April - Dec 2023	100% of participants will participate in one-on-one mentoring sessions and will work with a career coach.	Each participant will be provided individualized learning plans and remediation strategies with one-on-one mentoring.
April-May-23	Enroll 20 candidates in Apprentice Now pre-apprenticeship program: approximately 20 in either Cybersecurity or 20 in Infrastructure Support.	Each candidate will commit to enrolling and attending courses over the 12 required weeks of instruction. Weekly check-ins are required.
July - 23	100% of participants will complete their pre-apprenticeship training program.	Each participant's progress will be monitored to evaluate their successfully mastering competencies. .

July – Sept 2023	Participants will enroll in exam preparation workshop and receive study guide.	Participants must show progression and have readiness assessed by instructor to be issued a CompTIA exam voucher.
Sept-23	100% of participants will complete all career workshops and materials.	Each participant will participate in workshops either in-person and/or virtually to begin developing a resume, skills, and knowledge for a successful interview.
Oct-23	100% of participants will complete and submit a resume to Cyber Proud and the case manager for review and feedback. The coordinator will follow up with each on their interview and provide improvement techniques.	Each participant will create an outline for their resume and develop a pitch that would be expected in an interview. Each will receive the opportunity to do a mock interview.
Nov-23	Participants who complete all training levels, assignments, and projects to receive a certificate of completion.	Consistent attendance in all activities is required to receive a certificate of completion.
Dec-23	Participants will be referred for interviews upon completion of pre-apprenticeship for option for entering an apprenticeship program or direct hire.	Participants will be required to follow up with the case manager on a weekly basis until placed.
Post Program Monitoring	Participants will be placed with local employers and employment will be monitored for up to 90 days.	Participants will be required to follow up with case manager on a weekly basis once placed and report progress to receive bonus.

REFERENCE LIST

Aubree Taylor, City of Sacramento
Workforce Development Manager, Office of Innovation and Economic Development
Email: AJTaylor@cityofsacramento.org Office: 916-808-7191
Aubree serves as primary contact for Workforce Development Initiatives CARES Act funding received by Cyber Proud. Kriztina Palone was past PM prior to leaving City.

Dean Peckham, SVMA
Email: dpeckham@sacvalleymfg.org Cell: 916-507-0892
Have served in various workforce development efforts. Will be collaborating on workforce initiatives to serve City of Elk Grove next year.

Michael W. Reese, CEO, Found It Data
Email: mreese@founditdata.com Cell: 916.203.4219
Michael has served as a mentor to our Cyber Proud Sacramento program since October of 2020. He provides industry expertise to our participants and acts as a liaison to support our efforts.

George Usi, CEO, Omnistruct Inc.
Email: gusi@omnistruct.com Cell: 916.484.1111
George has served as a mentor to our Cyber Proud Sacramento program since October of 2020. He provides industry expertise to our participants and acts as a liaison to support our efforts.

Sean W. McNally, Rancho Cordova Unified School District
Cyber-Guild Advisor / Cyber Patriot, Northern California Cyber Competition Coordinator
Email: SWMcnall@egusd.net Cell: 916-531-2155
Sean serves as a K12 and college liaison connecting to training and academic programs.

Cornelius Brown, Director Of Education at Sacramento Ultrasound Institute, Rancho Cordova, CA
Email: cbrown@sui.edu Cell: (916) 224-5593
Cornelius Brown has been instrumental in supporting Cyber Proud's work sponsoring operations for the past 2 years on behalf of Los Rios. Cyber Proud continues to place community college students in its programs.

Conflict of Interest Statement

At this time there are no known activities or relationships of Cyber Proud, and/or service providers and/or subcontractors listed within this proposal that might create a conflict of interest for City of Rancho Cordova, and, if such activities or relationships was to exist, Cyber Proud would provide a description of the facts, legal implications, and possible effects sufficient to permit the City to appreciate the significance of the conflict and to grant any conflict waiver, if appropriate and necessary.

CONFLICT OF INTEREST Consultant certifies that it has disclosed to City any actual, apparent, or potential conflicts of interest that may exist relative to the services to be provided pursuant to this Contract. Consultant agrees to advise City of any actual, apparent or potential conflicts of interest that may develop subsequent to the date of execution of this Contract. Consultant further agrees to complete any statements of economic interest if required by either City ordinance or State law.

CONSULTANT

By: _____

Date: October 20, 2022

Name: Coleen Morehead

Title: Chief Executive Officer

Proposed Program Budget: Cyber Proud Pre-Apprenticeship Program
Term of Contract: 12 Months - January - December 2023

Recruitment / Sourcing Candidates					
Staffing	Director: Provide operational support and administrative services to oversee the organization, direct staff, contractors. Employment Specialist: Assist staff for skills training, leadership development, and post-program job placement, and directing follow up activities after the training.			6,400	
	Total Recruitment/Onboarding				**$6,400**
Marketing					
Staffing	Cyber Proud will partner with Apprentice Now to utilize professional marketing, advertising, and outreach services to recruit, assess, and manage the full recruitment and enrollment.			2,600	
Marketing & Design	Blue Ray: Website, Social Media Marketing, and Design Services			1,500	
Social Media Advertising	Budget for boosted Ads to source candidates via Facebook, Instagram, Twitter, etc.			250	
	Total Marketing				**$4,350**
Training					
Category	**Description**	**Quantity**	**Cost / Each**	**Sub Total**	**Total**
Apprentice Now: Pre-Apprenticeship Training	Apprentice Now award-winning Structured Online model drives effective, competency-based learning. Candidates are trained, in a rigorous online setting to ensure they possess the essential Day 1 Skills required to make an immediate contribution to potential hiring organizations. 2 technology tracks: Infrastructure Support & Cybersecurity Each track: 8 weeks, 40 hour a week M-F, online synchronous learning. Includes 1 instructor, 1 mentor and 1 account manager per cohort and reporting.	20	5087.50	101,750	
Staffing/Instructor	Career Training Workshops, Instructional Coach, Exam Prep.			24,600	
Certification Exams	Comptia Exam Vouchers				
	A+ Core or Network+	358	7160.00		
	Security+	392	7840.00		
	Total Certification Exam Vouchers			15,000	
	Study Guides	20	100	2,000	
					$143,350
Job Placement					
Staffing	Cyber Proud will provide case management services.			3,250	
Earn & Learn	Earn & Learn Employer Network Activated (ELENA) platform will streamline the coordination of WBL experiences and employer network.			2,500	
	Total Job Placement				**$5,750**
Admin/Overhead					
Staffing	Project Coordinator overseas program activities including enroll students, work directly with training provider to recruit, place and monitor progress.			4,810	
	Total Admin/Overhead				**$4,810**
			Total Program Cost		**$164,660**
			Total Cost Per Participant		**$8,233**
Optional					
Placement & Retention Bonus	After employment for 3 month each candidate receives a $500 bonus, and another $500 at 6 months.	20	1000		**$20,000**

Department of the Treasury
Internal Revenue Service
Tax Exempt and Government Entities
P.O. Box 2508
Cincinnati, OH 45201

CYBER PROUD INC
3301 C STREET STE 1000
SACRAMENTO, CA 95816-0000

Date:
11/20/2020
Employer ID number:
85-2461355
Person to contact:
Name: Customer Service
ID number: 31954
Telephone: 877-829-5500
Accounting period ending:
December 31
Public charity status:
170(b)(1)(A)(vi)
Form 990 / 990-EZ / 990-N required:
Yes
Effective date of exemption:
July 22, 2020
Contribution deductibility:
Yes
Addendum applies:
No
DLN:
26053660004090

Dear Applicant:

We're pleased to tell you we determined you're exempt from federal income tax under Internal Revenue Code (IRC) Section 501(c)(3). Donors can deduct contributions they make to you under IRC Section 170. You're also qualified to receive tax deductible bequests, devises, transfers or gifts under Section 2055, 2106, or 2522. This letter could help resolve questions on your exempt status. Please keep it for your records.

Organizations exempt under IRC Section 501(c)(3) are further classified as either public charities or private foundations. We determined you're a public charity under the IRC Section listed at the top of this letter.

If we indicated at the top of this letter that you're required to file Form 990/990-EZ/990-N, our records show you're required to file an annual information return (Form 990 or Form 990-EZ) or electronic notice (Form 990-N, the e-Postcard). If you don't file a required return or notice for three consecutive years, your exempt status will be automatically revoked.

If we indicated at the top of this letter that an addendum applies, the enclosed addendum is an integral part of this letter.

For important information about your responsibilities as a tax-exempt organization, go to www.irs.gov/charities. Enter "4221-PC" in the search bar to view Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, which describes your recordkeeping, reporting, and disclosure requirements.

Sincerely,

Stephen A. Martin
Director, Exempt Organizations
Rulings and Agreements

Cyber Proud Inc.

EIN: 85-2461355 | Sacramento, CA, United States

> **Other Names**

Determination Letter

A favorable determination letter is issued by the IRS if an organization meets the requirements for tax-exempt status under the Code section the organization applied.

> **Final Letters**

Publication 78 Data

Organizations eligible to receive tax-deductible charitable contributions. Users may rely on this list in determining deductibility of their contributions.

On Publication 78 Data List: Yes

Deductibility Code: PC

Page Last Reviewed or Updated: 20-November-2020

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STATE OF CALIFORNIA
Office of the Secretary of State
STATEMENT OF INFORMATION
CA NONPROFIT CORPORATION

California Secretary of State
1500 11th Street
Sacramento, California 95814
(916) 653-3516

For Office Use Only

-FILED-

File No.: BA20220375625
Date Filed: 6/15/2022

Entity Details

Corporation Name	CYBER PROUD, INC.
Entity No.	4621295
Formed In	CALIFORNIA

Street Address of California Principal Office of Corporation

Street Address of California Office	1900 POINT WEST WAY STE 104 SACRAMENTO, CA 95815

Mailing Address of Corporation

Mailing Address	1900 POINT WEST WAY STE 104 SACRAMENTO, CA 95815
Attention	Coleen Morehead

Officers

Officer Name	Officer Address	Position(s)
COLEEN MOREHEAD	6735 GARDEN HIGHWAY SACRAMENTO, CA 95837	Chief Executive Officer
– ~~Joe Collinwood~~	~~8156 Capitola Avenue~~ ~~Fair Oaks, CA 95628~~	~~Secretary~~
John Dunn	5617 Sickle Court Elk Grove, CA 95758	Chief Financial Officer
+ Gabrielle Morgan	2729 VIA FIORI EL DORADO HILLS, CA 95762	Secretary

Additional Officers

Officer Name	Officer Address	Position	Stated Position
+ Joel Maier	PO BOX 564 LINCOLN, CA 95648	Other	Director

Agent for Service of Process

Agent Name	COLEEN MOREHEAD
Agent Address	6735 GARDEN HIGHWAY SACRAMENTO, CA 95837

Email Notifications

Opt-in Email Notifications	Yes, I opt-in to receive entity notifications via email.

Electronic Signature

☒ By signing, I affirm that the information herein is true and correct and that I am authorized by California law to sign.

Coleen Morehead — Signature

06/15/2022 — Date

City of Rancho Cordova Economic Development's Department

To:

Amanda Norton,
Economic Development Manager
City of Rancho Cordova,
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Proposal from:

DP Global Solutions LLC.,
Contact: Surender Devarapalli
Email: surrender.devarapalli@dpgloabalsolutions.com
phone no: +1- (571) 215 – 2338
www.dpglobalsolutions.com
10969 Trade Center Dr #100, Rancho Cordova, CA 95670

Authorized Individual:

Surender Devarapalli,
CEO
DP Global Solution LLC.,

LETTER OF INTRODUCTION

Date: October 21, 2022

To

Amanda Norton,
Economic Development Manager
City of Rancho Cordova,
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Sub: Response to the Workforce Recovery Program Dated on September 26th, 2022

Thank you for the opportunity to work with the City of Rancho Cordova. DP Global Solutions is Rancho Cordova based business dedicated to service the community and corporations with the growing need of high skilled workforce.

DP Global solutions delivers customized and interactive consulting technical solutions to client's unique organizational technical requirements which helps to align their strategic vision. DP Global solutions recruit, develop, deploy the next generation of engineers on the highly demand technological solutions like Application Development, Cloud computing, Data Sciences, Cyber Security, and Software Quality assurance and enable them to be compete in market.

Our Vanguard program empowers the next generation of Trailblazers to build their careers in the Salesforce ecosystem. Along with our employer partners, we're on a shared mission to skill up new and diverse pipelines of talent to create a more equitable workforce.

As part of the work force development proposal DP Global solutions will recruit community member from diverse backgrounds in the City of Rancho Cordova, with the help of grant funds and train them on high demand technologies like Application development, Cloud Computing, DevOps, Data Science, Cybersecurity, and Software Quality assurance programs and get them industry recognized certifications. For this Proposal we are proposing **Salesforce Administrator training with Certification program for 12 weeks along with 6-months of hiring support, mentorship, and coaching**. our **Vanguard** workforce development programs will meet the growing needs of high skilled workforce in the cloud computing.

Our vision that all individuals, regardless of background, demographics, or socioeconomic status, should have access to the skills and support necessary to access opportunities as part of the Technology revolution. The program is a commitment to train the next generation of Trailblazers with the technical and business skills necessary to pursue careers across the Salesforce ecosystem.

Rancho Cordova's proposed work force development program will help eliminates the skills gap by putting resources through intensive and continuous training by creating exclusive talent pools that are custom trained to meet technology needs and corporation's business goals. Our Vanguard workforce development curriculum specifically designed for real-world systems and environments, which will help the trained resources to ramp up quickly and integrate with any of corporation's existing teams this will help increasing productivity from day one. This will be very cost effective

for the Corporations as our approach will eliminates employers' costs for recruiting, training, and retaining skilled technology talent.

Our goal is to create the diverse and dynamic community of highly skilled and creative technology pioneers in the Rancho Cordova region. This will ultimately help in empowering the Community and meets the needs of businesses and employers in The City of Rancho Cordova and the region.

DP Global Solutions have the combined experience of 30+ years in high demand technologies like Application development, Cloud Computing, DevOps, Data Science, Cybersecurity and Software Quality assurance programs, which will help to train and mentor Rancho Cordova residents to get trained and certified in the latest technologies. Our approach to workforce development will provide an immediate return on investment. We demonstrate our ability to transform and enhance City of Ranch Cordova purpose of the Workforce Recovery Program which increases access to career pathways programs for the Rancho Cordova residents.

Our relationship with various community organizations and professional network will help us to reach the underserved areas in the in City of Rancho Cordova, which ensures that this program is accessible to those who need it most at no cost. Using a hands-on real time project-based curriculum, DP Global Solutions mentors will train and mentors the identified resources. DP Global Solutions is a proven partner with public and private sector where some of our workforce is actively engaged in solving the high demand technology needs

We would be delighted for the opportunity to serve the City of Rancho Cordova residents in developing the Vanguard Workforce Recovery Program which lead to economic prosperity for both city residents and business.

Surender Devarapalli, CEO,
DP Global Solutions, LLC
Surrender.deverapalli@dpglobalsolutions.com

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1. QUALIFICATIONS & EXPERIENCE

DP Global Solutions is Rancho Cordova based business dedicated to service the community and corporations with the growing need of high skilled workforce.

DP Global solutions delivers customized and interactive consulting technical solutions to client's unique organizational technical requirements which helps to align their strategic vision. DP Global solutions trains the next generation of engineers on the highly demand technological solutions like Application Development, Cloud computing, Data Sciences, Cyber Security, Salesforce, and Software Quality assurance.

To set the tone and foster confidence, our team of consultants will evaluate the organization's needs and deploy our workforce and implement consulting solutions. The following are sample of our current engagements with our technology clients in solving the technology needs by emphasizing rapid, targeted, low effort-high return.

DP Global Solution successfully participated and completed City of Rancho Cordova 2021 Workforce development program a total of 11 city residents enrolled in the program. Seven participants of the program successfully completed the training program and five passed the highly desirable Amazon Webservices (AWS) Practitioner Certification. The greater joy is that two of the participants successfully secured employment in the technology field. Two participants requested an extension to complete the AWS Certificate, and four participants withdrew from the program due to personal matters.

Our experiences also includes Technology consulting, development, training for the below clients:

- **Department of Health Care Services (DHCS)**
  - Provides management consulting services and subject matter expertise in implementing the new Medi-Cal Rx and MES Modernization projects
  - Facilitate the implementation of process improvement initiatives
  - Collaborate with DHCS in developing the training materials to train their employees.

- **Guidehouse**
  - Guide house is a leading global provider of consulting services to the public sector and commercial markets, with broad capabilities in management, technology, and risk consulting.
  - DP Global Solutions Consultants work with Guardhouse and its end clients in Public-sector technology modernization and system replacements project with latest technologies like Salesforce, Amazon Cloud Implementation.
  - Develop end user trainings for the technology adaptations

- **BlueShield of California**
  - Provide Salesforce Cloud solutions and Salesforce application development
  - Software Quality Assurance Plan and Services

- **Tech Mahindra**
  - Provide specialized Salesforce, Salesforce, Amazon, GCP and Azure Cloud Implementation Consulting Services
  - Our areas of focus include IT Service and IT Business Management

- **California Governor's Office of Emergency Services (CalOES)**
  - Salesforce Cloud consulting services, custom application development and data Analysis and providing specialized
  - Developed software Quality Assurance plan.
  - Areas of focus include IT Service and IT Business Management

2. PROJECT DESCRIPTION

2.1 Project Overview

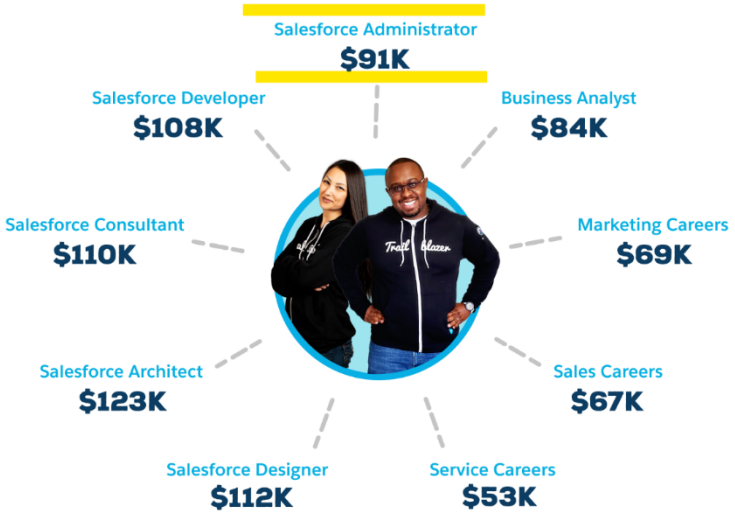
DP Global Solutions will host 12 weeks of Salesforce Administrator training with Certification program which is the world's most comprehensive and broadly adopted Customer Relationship cloud platform, Millions of customers including the fastest-growing startups, largest enterprises, and leading government agencies are using Salesforce to lower costs, become more agile, innovate, and implement faster. Salesforce ecosystem is creating job opportunities worldwide, according to International Data Corporation (IDC) by 2026, the Salesforce economy will create 9.3 million new jobs. Our Vanguard program will help in joining the incredible, interconnected network of learners and innovators who use Salesforce to build successful careers, companies, and communities.

Salesforce is the global leader in Customer Relationship Management (CRM), bringing companies closer to their customers in the digital age. Founded in 1999, Salesforce enables companies of every size and industry to take advantage of powerful technologies—cloud, mobile, social, internet of things, artificial intelligence, voice and blockchain—to create a 360-degree view of their customers

Gaining and signaling proficiency with Salesforce pays off for workers and jobseekers The growth and proliferation of the Salesforce platform has positively affected compensation and career progression for those who can demonstrate proficiency in the tool. Job postings for sales roles that ask for Salesforce skills offer a salary bonus of 19% for the Salesforce Administrator certification. The salary bonus is 25% for positions in office management. The certification for Salesforce Service Cloud Consultant carries a salary bonus of 15% for business analytics professionals, and job postings for marketing professionals offer salaries that are 20% higher when they list Marketing Cloud certifications. On average, jobs requiring
Salesforce skills pay approximately $80,000 per year.

The rise of the Salesforce Administrator In adopting the Salesforce platform, organizations often staff an internal authority on how to implement, manage, maintain, and modify the platform across the organization. This function is referred to as a Salesforce Administrator.

Salesforce identified job postings for **Salesforce Administrators** using a combination of job titles and skills. In 2018, there were nearly 50,000 job postings for this position. The average salary advertised for these roles was $91,000, ranging from **entry-level positions** advertising an average salary of $71,000 to senior roles advertising an average salary of $102,000.



2.2 Project Design

DP Global Solutions team brings deep knowledge and experience in all the latest enterprise-level technologies. DP Global solution's Vanguard workforce development project is proposed to upskill & educate students on world's #1 customer relationship management software and applications focused on sales, customer service, marketing automation, analytics, and application development called Salesforce.

Salesforce users can be technical or non-technical. Among those who don't program within the platform, the largest group of Salesforce end users work in sales, marketing, and business analytics. There is also large demand for Salesforce among customer service professionals. Across these four professional areas, users use Salesforce applications to find, track, sell to, communicate with, and analyze customers.

Strategy: 12 weeks of DP Global Solutions Vanguard Workforce development program is designed for anyone who are like unemployed or underemployed, displaced, or may have been laid-off because of the COVID-19 crisis, with a high school diploma or Associate degree or bachelor's degree in Mathematics, Science, or computer Science as majors.

Intake Process: DP Global Solutions will conduct extensive marketing in the city to identify the right and needed talent to offer extensive training on **Salesforce Administrator Certification program**. Upon receiving multiple applications, we plan to conduct prescreen to evaluate and interest of applicants who can meet the primary metrics, goals and measure of success set by the City of Rancho Cordova.

DP Global Solutions has developed and matured in **Salesforce** curriculum that is designed to keep jobseekers engaged in learning with hands-on activities, and challenges. Curriculum is developed to provide an educational pathway for the jobseekers to get their **Salesforce Administrator Certification**.

Program Model: Our Program will provide total of 12 weeks of training which includes the Salesforce Administrator training, hands-on lab exercise's, capstone project in designing the Salesforce solutions to meet the real-world practical applications and exam preparation along with 6-months of hiring support, mentorship, and coaching. Weekly training is followed by weekly assignment and weekly lab hours will enable applicant to gain theoretical and practical knowledge on Salesforce cloud computing concepts. 12 weeks of extensive trainings, hands on lab and Capstone project will provide the applicants administering and providing the business analysis of the Salesforce CRM applications for small/medium, large and government enterprises. Upon successful completion of training, we will have prescreened and preparation Certification training program on the exit criteria. This project goal is to get certified in **Salesforce Administrators** which intern will help in getting high paid jobs with minimum of $40-$50 per hour and this program also increase the diversity in the Salesforce workforce. The training can be performed either in-class or through virtual classroom.

Upon completion of this Salesforce Administrator Certification (SFDC) applicants will be able to perform SFDC Admin supports the organization with improving the performance of their Sales and Marketing units through management of the CRM platform through understanding and solving business and technology challenges related to the implementation of SFDC technologies. In some organizations, administrator jobs are combined with other roles. Depending on their needs, some hire for this role specifically. Because of our platform's capabilities, having someone with an admin certification (more on that in a minute) can ensure the company is using the platform to its fullest potential.

Realtime example of Salesforce admin, in a given organization sales team use Sales Cloud to keep track of opportunities and close deals. With the help of a Salesforce Admin, your salespeople can set up personalized dashboards, fields, alerts, and reports to shorten the sales cycle and track every lead in greater detail. This level of organization can lead to greater satisfaction among salespeople and new customers.

In addition to the training, our Vanguard program support participants for 6-months of hiring support, mentorship, and coaching This will enable them to secure better jobs, upskill their career in professional grooming with industry experts to help the resources to secure that winning edge.

During the routine of workforce development, it is expected that applicant attends more than 92% of training classes, hands on lab work and complete assignments on time. We can enable the class recordings for future references.

In addition to the goals listed in the NFO, DP Global Vanguard program committed to achieve the overall goals for this program are to:

- Address critical labor market shortages in the City of Rancho Cordova by developing Highly Skilled workforce to cater the demand for high demand and highly paid technological occupations.
- Decrease unemployment by providing streamlined paths to high demand occupations and careers.
- Share best practices and resources among the region's workforce development partners.
- Upskill opportunity for applicants to know and excel for better career advancements.
- Meet and exceed the primary metrics and goals of the of national workforce program
- Providing employment services and resources for the program participants which can produce the economic sustainability and provide career path to next generation technology revolution.
- Providing direct job placement or entry level/ internship opportunities for Certified Salesforce Administrators

2.3 Past Performance and Planned Outcomes

DP Global Solutions team of professionals has combined 60+ years of careers in the high technology fields, in the varying fields Cloud Computing, Data Analytics, Project Management and Cybersecurity with strong educational background and Industry expertise and experience. Thought our team professional experience we have credentials and experience in educating and training many resources to achieve success in the high skilled technology area. In the year 2020 and we have trained total of 25 community members consultants in the areas of Salesforce, AWS, ServiceNow, Software Quality assurance and Data sciences.

DP Global Solution successfully participated and completed City of Rancho Cordova 2021 Workforce development program a total of 11 city residents enrolled in the program. Seven participants of the program successfully completed the training program and five passed the highly desirable Amazon Webservices (AWS) Practitioner Certification. The greater joy is that two of the participants successfully secured employment in the technology field. Two participants requested an extension to complete the AWS Certificate, and four participants withdrew from the program due to personal matters.

Our Success Story from 2021 funding Measurable Outcomes

Program Milestone Summary Statistics:

- 100% Participants felt this program helped them upskill for a career in technology.
- 100% felt this program is something the city should continue to provide for others who are looking to upskill in a career in data analytics.
- 100% of participants said having my city sponsor a program like this makes me feel my city is invested in its citizen's future.
- **70% of participants passed the AWS Certification.**
- **40% (2/5) of those who achieved Certification secured new jobs.**

City of Rancho Cordova December Career Skills Expo helped the community to recognize the program benefits from the city funding and with the success of 2021, we have received an overwhelming response from the community to participate in the next workforce development program. During the December 2021 Career Skills Expo 22 city residents proactively registered for the 2022 program, we are requesting funding to serve the newly registered community members for the Winter 2022/Spring 2023 session.

2.4 Partnerships

Our existing clients Statement of work order and the Master Service Agreements will support our partnerships where we are in continuous engagement in understanding the client needs and upskill the workforce to meet the growing need of client demands.

Through strategic partnerships, DP Global solutions helps to close the opportunity gap and create pathways for qualified candidates from diverse experiences and educational backgrounds to reach their potential as technology professionals.

2.5 Project Expected Timeline

From planning to execution, DP Global Solution will deliver Workforce Recovery Program within 12 weeks. And we anticipate training program will deliver results within three (3) months with outcomes continuing indefinitely.

Below are the key high-level milestones along with date and prerequisite details.

Milestone	Date	Prerequisite Milestone/Contingency
Identify the resources	November 15th, 2022, to December 30th 2022	High school diploma holders who have a passion on the computer disciplines, Associate Degree, Bachelor's degree in Mathematics, Science, or computer Science as majors. Or Prior IT Experience.
Notify the resources about training start date	January 4th, 2023 to January 13th, 2023	Through email, group messages and social media platforms.
Training and development	January 18th to April 30th	In person / Virtual classroom.
Lab work	January 18th to April 30th	In person / Virtual classroom.
Capstone Project	April 3rd to May 12th	In person / Virtual classroom.
Certification exams Preparation and Salesforce Admin Certificate Exam	May 15th to May 31st	In person / Virtual classroom.
Employment Assistance	May 1st to October 31st	In person / Virtual classroom.

3. SOURCES AND USES OF FUNDS:

Funding request for this DP Global Vanguard Program will be the amount requested in the RFP for a total of $248350. For a detailed breakdown of the use of funds,

Category	Service/Description	Quantity	Total Hours	Cost	Total Coast
Training & Development	Program Director		200	$125.00	$25,000.00
Training & Development	Subject Matter Expert /Coach		400	$125.00	$50,000.00
Training & Development	Project Manager		400	$100.00	$40,000.00
Training & Development	Technical Lead/Capstone Project Guide and Trainer		400	$100.00	$40,000.00
Training & Development	Industry Guest Speakers/Mentors		50	$125.00	$6,250.00
Training & Development	Technical Job Support, Community Engagement, building employer Partnerships for the Internships, Communications and Marketing Lead		400	$75.00	$30,000.00
Training & Development	Lab Infrastructure Setup, Licenses, Course Material Design and Books	22	N/A	$550.00	$12,100.00
Outreach	Digital Marketing for Recruitment Drive, Communications and Notifications	N/A	N/A	$10,000.00	$10,000.00
Training & Development	Certification Fee and Practice Exam Preparation	22	N/A	$450.00	$10,000.00
Training & Development	Laptop and peripherals	25	N/A	$800.00	$20,000.00
Outreach	Work Force Development Program Launch, Student Networking, Graduation				$5,000.00
					$248,350.00
	Total number Participants	22			
	Cost Per Participant				**$11,288.64**

4. CONFLICT OF INTEREST STATEMENT

At this time, DP Global Solutions does not see any conflict of interest with its current sponsors/partners and the work outlined in this request.

5. EXCEPTIONS

DP Global solutions financial documents are not public records.

6. SUPPORTIVE INFORMATION

- Please refer the attached documents.
  - Master services agreement on previous assignments
  - Business license
  - Financial documents.

- REFERENCES

GuideHouse
Jamie Spagner, Director - Public Sector
jspagner@guidehouse.com; (916) 233-5371

Tech Mahindra
Sachin Murthy, Sr. Manager -Business Development
sachin.murthy@techmahindra.com, (732) 614-7876

Department of Health Care Services
Location: 1501 Capitol Avenue, Sacramento, CA 95814.
Contact: Linh Le, Chief of Drug Rebate Branch, linh.le1@dhcs.ca.gov, (916) 345-8563

CalOES – Four Leaf Partners
Eric Scully; Managing Director
escully@fourleafpartners.com, (925) 577-5144

City of Rancho Cordova

Workforce Recovery Program

Grant Proposal 2022-2023

Submitted by

FOLSOM CORDOVA
Community Partnership

Introductory Letter

City of Rancho Cordova
Economic Development
2729 Prospect Park Drive, Rancho Cordova, CA 95670

The Primary Organization submitting this proposal:
The Folsom Cordova Community Partnership
PO Box 3227
Rancho Cordova CA 95741
Robert Sanger, Executive Director
RSanger@theFCCP.org
916.361.8684 x 290

Folsom Cordova Community Partnership (FCCP) is submitting this grant application to be considered for funding by the City of Rancho Cordova to provide comprehensive, holistic and metrics-based employment services that targets jobseekers of Rancho Cordova at its Job Center, located at 10826 Gadsten Way, Rancho Cordova, CA 95670.

FCCP has been serving the community of Rancho Cordova for over 29 years and is the only east Sacramento County provider to offer comprehensive services necessary to assist individuals and families to achieve self-sufficiency. Over the years, FCCP has created a “One Stop” approach to bring together resources and programming in our Job Center and Family Resource Center, which supports Rancho Cordova families by saving time, money on transportation costs and providing access critical services to meet their needs, reach their employment goals and improve their quality of life.

FCCP proposed project aligns with the goals of City of Rancho Cordova by promoting the richness of the city’s assets by ensuring safe communities while empowering responsible citizens within City boundaries. The City is supported by regional leadership that builds the financial portfolio by addressing financial challenges and recruits diverse economic opportunities and was designated one of the country's top 10 most diverse cities in 2010 and continues to boast a large immigrant and the refugee community. Currently, the City of Rancho Cordova is grappling with a large number of unemployed, homeless and at risk of homelessness. Rancho Cordova’s unemployment rate is at 3.7% as of August 2022, which is consistent with the National average at 3.7%. While there is opportunity to work, Rancho Cordova has a poverty rate of 11.6% which rivals the National average at 12.8%. Women ages 25 -34 are the largest group living in poverty followed closely by men ages 25-34. Evenmore critical is the growing number of unhoused individuals as documented in the 2022 Point-in-Time Count report, which showed an increase of

67% from the 2019 results of homeless individuals, families and youth in Sacramento. Currently, out of 9,278, approximately 160 are living in Rancho Cordova. Black individuals are 3 to 4 times more likely to experience homelessness and 58% of individuals report having at least one disability.

FCCP has been operating one of nine American Job Centers in Sacramento in Rancho Cordova since 2015 on the campus of the Folsom Cordova Unified School District's Adult Education. FCCP's Job Center has been providing individualized career services including program eligibility, comprehensive assessments, and customized case management for various training programs, resulting in a 90% completion rate in Occupational Skills Sector Initiative (OSSI) and Occupational Sector Training (OST). During these 7 years, FCCP was able to provide technology access for job seekers, assistance with workforce preparation activities including resume preparation and interviewing skills, job search assistance and employer recruitments. On average we have recorded over 200 job seekers monthly seeking basic and case management support. FCCP's Job Center focuses on the following zip codes, 95670, 95742, 95655, 95827, 95630, 95670 and 95742 which include some of the highest poverty neighborhoods and surrounded within 5-mile radius by Williamson Elementary School,White Rock Elementary and Cordova Villa. FCCP's Job Center is located centrally within these neighborhoods, easily accessible by foot and public transportation and ideally situated to serve Rancho Cordova residents.

With FCCP's Job Center success providing employment training and job placement treatment, we were able to expand services to be able to serve underserved and hard to reach populations such as individuals with disabilities and recently settled refugees in the area. In collaboration with Sacramento Employment Training Agency, we have been able to implement and build on our workforce programs to include training and job placement programs for individuals with disabilities and recently settled refugees in America.

FCCP was established in 1992 and currently has 38 employees and will have a total of 9 employees working on the Rancho Cordova Job Center project. Please refer to Section 8 Supportive Information for FCCP's financial audit report and gross/net revenue reports for the 2020/2021 FY and 2021/2022 FY.

A detailed budget narrative and itemized funding request is attached in Section 8 titled Budget Narrative.

Below are the three references from entities as requested.

WIOA, Out of School Youth services	WIOA, Job Center Adult & Dislocated Worker services	Refugee Support Services, ES and VELS-OJT services

Sacramento Employment Training Agency (SETA) Ericka Martinez Workforce Development Planner (916) 263-3864 ericka.martinez@seta.net 925 Del Paso Blvd. Sacramento, CA 95815	Sacramento Employment Training Agency (SETA) Julie Davis-Jaffe Workforce Development Manager (916) 263-3929 julie.jaffe@seta.net 925 Del Paso Blvd. Sacramento, CA 95815	Sacramento Employment Training Agency (SETA) Michelle O'Camb Workforce Development Manager (916) 263-3868 michelle.o'camb@seta.net 925 Del Paso Blvd. Sacramento, CA 95815
Local Government Entity	Local Government Entity	Local Government Entity
Workforce Development	Workforce Development	Workforce Development
Employment Training and Job Placement for out of school youth ages 16-24.	Employment Training and Job Placement for adult and dislocated workers	Employment Training and Job Placement for refugee adults
Dates of service: 7/1/2022-6/30/2023	Dates of service: 7/1/2021-6/30/2022	Dates of service: 10/1/2022-9/30/2023
Contract Term: FY 2022-2023	Contract Term: FY 2022-2023	Contract Term: FY 2022-2023
Dollar Amount: $70,944	Dollar Amount: $300,000	Dollar Amount: $421,160

FCCP is a non-profit corporation and evidence of tax-exempt status pursuant to Section 501(c)(3) of the Internal Revenue Code. Documentation for 501 (c)(3) status is attached in Section 8.

FCCP's current business license from the City of Rancho Cordova is attached in Section 8.

Sincerely,

Robert Sanger
Executive Director
Folsom Cordova Community Partnership

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Section 3: Qualifications & Experience

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a. **A description of each firm relevant to the project's development, and management. Include information on each firm's role in the project, and experience working together on previous projects. Also, note which firm will be the project lead.**

FCCP will be sole applicant of the project titled JobEx program. FCCP has further built the staff expertise, community engagement, and leveraged resources with the RC Workforce Recovery Program for 2021-2022 and can accomplish the project successfully for JobEx in 2022-2023. FCCP has over 29 years of history of providing services in the Northeastern part of Sacramento County, in particular to Rancho Cordova residents and has established a strong foundation with community entities throughout Sacramento and the state of California. FCCP was recognized as the "Non-profit of the Year" distinction in 2017 through the Rancho Cordova Chamber of Commerce.

FCCP has grown over its 29-year history through the implementation of new grants and innovative strategies to comprehensively address the challenges of low-income community members. Through our "one stop" model, we consistently evaluate new initiatives to bring to community residents, especially families with children ages 0-5 years of age. We believe this workforce recovery program grant is a perfect fit to the work we are doing in the communities and will enhance our capacity towards economic prosperity by increasing access to career pathway programs supporting Rancho Cordova residents to successfully enter workforce in skilled occupations.

b. **Identify key staff, including brief resumes that include length of time providing such services and contact information (including location, phone and email address). The proposal should indicate each team member's responsibility for project tasks. Identify the lead person who will be the primary liaison.**

Oversight of this project will be provided by Doris Cortez, Director of Programs at the FCCP Job Center, who is bilingual in English and Spanish. Doris Cortez has a Bachelor's Degree in Political Science and Psychology with a focus on public service, women and genders studies. She has extensive experience in workforce development, program management and community development. She will be providing oversight and management of the program. Edith Pacheco will provide project management of the JobEx Program. Edith is also bilingual in English and Spanish. She will provide training for career specialists on individualized career services conducting assessments, customizing training, skill readiness, job coaching, navigation of various search engines and community resources. Noune Manukyan and Vika Barnyak will be providing individualized intensive case management activities to participants and continue supporting JobEx operations. FCCP will hire an additional Career Specialist to implement

proposed workforce development activities and a Job Developer who will increase relationships with local employers and identify job placement opportunities, ultimately increasing workforce development capacities for Rancho Cordova residents.

Director of Programs- Youth & Employment Services	**Employment Services Manager**	**Career Specialists (3)**	**Job Developer**
Doris Cortez dcortez@thefccp.org (916) 294-9107 ex. 840503	**Edith Pacheco** epacheco@thefccp.org (916) 294-9107 ex. 840516	**Noune Manukyan** nmanukyan@thefccp.org (916) 294-9107 ext. 840510 **Viktoriya Barnyak** vbarnyak@thefccp.org (916) 294-9107 ext. 840512 1 To Be Hired	To Be Hired

.15 FTE. of administrative and accounting support will be provided by Executive Director at .05 FTE, Accounting/Administrative Director at .05 FTE and Accounting/ Administrative Assistant at .05 FTE.

Also, the management staff at FCCP participate on many boards and commissions advising program and policy design to marginalized and low-income community members.

c. For each nonprofit organization involved in the project, provide nonprofit name, incorporation date and place, affiliated organizations, IRS tax status, annual budget, and major sources of funding.

FCCP was established in 1992 in Sacramento County and has over 29 years of experience serving community members throughout the City of Rancho Cordova. Project Name: Rancho Cordova JobEx program will be located at 10826 Gadsten Way, Rancho Cordova, CA 95670. FCCP is a 501(c)3 tax exempt non-profit organization. FCCP's fiscal year annual budget 2022-2023 is $3.568 million receiving major funding from Sacramento Employment Training Agency (SETA), City of Rancho Cordova, The Center at Sierra Health Foundation, First 5 Sacramento, Sacramento County Dept of Child Family and Adult Services and Sacramento County Department of Human Assistance.

d. For each entity, the proposal shall include a list of jurisdictions and projects similar to the one proposed in which the entity has provided such services in the past 5 years. Projects included shall include the client's name and location. At least five examples of recent, relevant projects shall be provided. For firms, the list should include the name of the jurisdiction, contact person, phone number, and the approximate amount of funding received. Respondent must have no record of unsatisfactory performance with the city or with any other jurisdictions the respondent has contracted with or received funding from. References may be contacted as a part of the selection process and will be asked to comment on work quality and performance.

The past 5 years FCCP has provided services operating the following programs that are similar to the project proposed, Youth Career Center, Out of School Youth, Financial Empowerment, Adult and Dislocated Worker Workforce Development, and Refugee Workforce Development.

City of Rancho Cordova - Youth Career Centers

Contact	Objective	Lead Implementers	Specifics	Outcome	Funding Amount
Stacy Delaney sdelaney@cityofranchocordova.org Community Enhancement Analyst II- City Manager's Office 2729 Prospect Park Dr. Rancho Cordova, CA 95670 (916) 851-8878	Strengthen community focused provisions of youth workforce services	FCCP with activities at Rancho Cordova Cordova High Schools (Cordova, WalnutWood and Kinney High Schools)	Workforce development through FCCP Youth Career Centers Evaluate local youth focused programs, to determine approaches effectiveness and outreach of these programs	Satisfactory Increased collaboration with Community Enhancement initiatives and established ongoing capacity building among youth and educators.	$40,000 for PY 2022-2023

FCCP has provided Rancho Cordova high school students with on-site Youth Career Centers at Cordova, WalnutWood and Kinney High School campuses for over 4 years. These Youth Career Centers have provided staff assisted services to help students explore career pathways, develop

career plans, build career readiness skills, and connect to workplace experiences in the local business community through internships, training and part time employment. In the first year of funding FY 2018-2019, FCCP assisted 89 students with the above activities with a resulting in ten jobs achieved. In FY 2019-2020, FCCP increased unduplicated students to 97 and FY 2020-2021 increased to 101 unduplicated students served. In the FY 2021-2022 program year, 115 unduplicated students were served resulting in 19 job placements.

The Organization for Economic Co-operation and Development (OECD), an international organization that conducts research to inform better policies and lives, examined longitudinal studies that explored the relationship between teenagers' occupational aspirations and what actually happens to them in the adult labor market, and found that teenagers who combine full-time study with part-time work can expect to do better in the adult job market. Young people who aim high while in school are more likely to end up in managerial or professional jobs requiring university education than would be anticipated given their background and academic performance. High school teachers, counselors and administrators have an extraordinary amount of work to accomplish in meeting the educational needs of their student populations. The research literature is clear that one of the best indicators of a young people's capacity to understand and progress in the labor market is the extent to which their educational and occupational aspirations are aligned, in particular for young people from disadvantaged backgrounds are more likely to demonstrate misaligned expectations. Youth Career Centers is supported by local service as a critical part of the community's infrastructure.

Sacramento Employment and Training Agency - WIOA Out of School Youth

Contact	Objective	Lead Implementers	Specifics	Outcome	Funding Amount
Ericka Martinez ericka.martinez@seta.net Workforce Development Planner 925 Del Paso Blvd. Sacramento, CA 95815 (916) 263-3864	Strengthen community focused provisions of out of school youth workforce services	FCCP	Offering one on one case management services for on the job training placements through community based resources with other resources. Evaluate local	Satisfactory Retained program and continuing to receive ongoing funding support. Operating since 2016 and served and placed over 100	$70,944 for PY 2022-2023

			community focused programs to determine fit for the youth independent service plan. Collaborate with school districts and community colleges.	youth in work experience at an employer making their career interests.	

FCCP's OSY program is designed to connect out of school youth to a career pathway through job readiness and life skills training, work experience exposure, continuing education and its impact on earnings. Youth will be assessed for academic proficiency, career interests and aptitudes, strengths and barriers to employment and self-sufficiency. Youth receive one on one case management services to support academic enrichment, paid work experience, job readiness and professionalism skills, and be guided on a career path matching their interests and aptitude. Youth graduating from the program will be on a course toward higher lifetime earnings through career pathway support including education, work experience, and employment mentoring.

Folsom Cordova targets the following zip codes, 95670, 95742, 95655, 95827, 95630. Rancho Cordova City (95670 and 95742) recorded a 4.0 % unemployment rate in August 2022 (The Bureau of Labor Statistics) which is just below the state average of 4.10%. This area of Rancho Cordova has a high population density with many single parent households living in apartments. Resources available to serve Out of School Youth within these neighborhoods are severely limited. OSY efforts are concentrated on the low income neighborhoods including Walnutwood, Kinney and Cordova High School.

There is a lack of resources for disconnected youth ages 16 to 24 in the targeted area. There are limited youth employment programs with a footprint in Rancho Cordova. While some providers claim to be serving Rancho Cordova (and surrounding) youth, without a location in the high-need area of the community, local youth will have difficulty knowing about or accessing services.

CA DSS Office of Child Abuse Prevention - Financial Empowerment

Contact	Objective	Lead Implementers	Specifics	Outcome	Funding Amount

Carrie Osada Carrie.Osada@dss.ca.gov Family and Community Support Services, Analyst California Department of Social Services - Office of Child Abuse Prevention 744 P Street, MS 8-11-82 Sacramento, CA 95814 (916) 651-5025	Improve financial literacy to reduce the incidence of child abuse and neglect, reduce dependence on aid and improve self sufficiency for at risk families with children 0-5	FCCP	Build the infrastructure to support a comprehensive financial literacy education program to use with all families we serve.	Satisfactory Established a strong financial literacy infrastructure and able to embed financial education in all FCCP programs reducing generational poverty.	$225,000

FCCP has providing financial empowerment education with increasing capacity with a pilot grant from the Office of Child Abuse Prevention (OCAP) for three years. Although this pilot grant has ended, it provided FCCP with seed monies to develop and adopt Consumer Financial Protection Bureau's (CFPB) financial empowerment curriculum and tools to the unbanked and underbanked in our communities. We have created dynamic presentations, activities and handouts to provide a vibrant experience that addresses all learning modalities in four languages; English, Spanish, Farsi and recently added Russian. Each language series has specific adoptions based on cultural specifics regarding money and banking practices. We have piloted and administered this teaching series in both classroom and virtual modules as well as through one on one financial coaching. FCCP received the National Financial Literacy Month Proclamation in April 2021 by the City of Rancho Cordova Council for successfully mobilizing financial education throughout Sacramento County.

Through this pilot period we have delivered financial empowerment education to over 200 community members and we have been funded by CalMoneySmart to continue financial literacy. Based on responses to the Financial Management Behavior Scale we learned that the most problematic financial behaviors for these individuals related to savings. Prior to the training 45.2% of respondents were not actively maintaining an emergency savings fund, 45.2% were not saving for a long-term goal and 35.7% did not save from paychecks regularly. After

completing FCCP's financial empowerment education of clients not actively maintaining an emergency savings fund had dropped to 14.3%, the percentage not saving for a long-term goal fell to 16.7% and only 11.9% were having trouble savings from paychecks regularly. These are improvements of 30.9%, 28.5% and 23.8%, respectively.

Sacramento Employment and Training Agency - WIOA Adult and Dislocated Worker

Contact	Objective	Lead Implementers	Specifics	Outcome	Funding Amount
Julie Davis-Jaffe Julie.Jaffe@seta.net Workforce Development Manager Sacramento Employment Training Agency 925 Del Paso Blvd. Sacramento, CA 95815 (916) 263-3929	Purpose and goals of proposed career (basic and individualized services	FCCP	Provide prevocational and work readiness services, technology to support job search and application, career pathway planning and access to training opportunities	Satisfactory Served over 2000 community members primarily Rancho Cordova residents at over 50% transitioned into job placements, stabilization with referrals to community resources.	$300,000 for PY 2022-2023

FCCP's provision of Basic and Individualized services has resulted in economic and social impacts for the targeted communities in Sacramento, in particular Rancho Cordova residents. Rancho Cordova was identified by Sacramento Employment Training Agency demographically needing access to workforce development to lower unemployment, increase economic prosperity, and increase family stability. With the implementation of the FCCP Job Center, businesses have experienced a reduction in costs to train new staff and be able to access a higher qualified local labor pool to fill their open positions. Individuals and families have experienced reduced financial stress, while establishing employment history and acquiring valuable skills in a growing occupation or industry. Individuals have access to a career pathway that allows for a continued upward trend of wages in an industry of projected growth. Individuals, and their families, will become self-sufficient, increasing family stability for adults and children in the home. Family stability supports higher learning outcomes for children, higher education completion rates, and projected higher earnings for children over their

lifetimes.

With the onset and aftermath of the pandemic, Rancho Cordova experienced increased unemployment and a lack of access to community resources with the massive shut down of public transportation and critical financial resources. FCCP was able to quickly mobilize to provide concrete direct supports, dedicated, intensive case management, financial empowerment education and employment support to individuals. FCCP takes a whole systems approach to individual and family services and provides wraparound support services such as rental assistance, employment supports, transportation, access to health and nutrition services to successfully seek employment and career training opportunities. FCCP Adult and Dislocated Worker program transitioned to providing a semi hybrid service delivery model to include both in person and virtually capacities to provide a continuum of services during the pandemic and beyond. In the process we have advanced our ability to diversify and meet the needs of the changed landscape of workforce development for both the job seekers and the employers by implementing monthly job fairs and are planning pop up job fairs onsite for employers to set up a time to be available for walk-ins and assigned appointments. FCCP has provided an interview room by appointment based for candidates needing to do virtually interviews with a laptop and webcam.

Sacramento Employment and Training Agency - WIOA Refugee Support Services

Contact	Objective	Lead Implementers	Specifics	Outcome	Funding Amount
Michelle O'Camb Michelle.O'Camb@seta.net Workforce Development Manager Sacramento Employment Training Agency 925 Del Paso Blvd. Sacramento, CA 95815 (916) 263-3868	Meet the needs of refugees in acculturation and meeting economic self sufficiency.	FCCP	Employment services for refugees provided either through Vocational English-as-a-Second Language (VESL) combined w/Employment Services (ES). Assist in adjusting access to community resources.	Satisfactory Served over 500 new arrivals at over 50% transitioned into job placements and stabilization with referrals to community	$402,160 for PY 2022-2023

Sacramento County has one of the highest percentage of refugees in the nation. FCCP has the foundational experience and has been operating SETA Refugee program since 2014 to meet the continued need to assist refugees with job search, job skill readiness and job placement. FCCP has also provided supportive services with referrals for affordable housing, culturally appropriate and intermittent childcare, immigration, legal and medical appointments, translation and interpretation, and other services. In some cases, there are large geographic distances between employment service providers and the areas in which resettlement agencies house newly arrived refugees. More collaboration is needed between resettlement agencies and employment services providers as new populations arrive in order to provide a more timely response to new populations arriving in the Sacramento area.

More extended services, especially mental health services, are needed to address the trauma many refugees have experienced. Trauma has been observed in children and youth in the Sacramento schools. When accessing health care, refugees also face transportation, cultural and language barriers.

There is a need for extended case management with resettlement agencies. FCCP Refugee Employment Support staff have provided employment service providers with supporting acculturation transitions. However there continues to be a need for broader career development services to meet the unique needs of professional refugees and SIVs including translation of transcripts and credentials, advanced ESL, long term career pathways development, and entrepreneurship/self-employment training.

All services are provided in a manner that is culturally and linguistically compatible with a refugee's culture and language background. Refugee women are given the same opportunity as refugee men to participate in refugee-funded services, and ensure to the maximum extent possible that funded service providers hire bicultural and bilingual women to support service delivery

Section 4: Project Description

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a. **Name of Project: JobEx Program**

b. **Project Design:**

The goal of this project is to continue the expansion of workforce development in individualized career services for residents of Rancho Cordova through a referral based program model. This location has a 315 square foot universal access room with eight computers for job seeker use for online applications, resume preparation, and job search. Additionally, this location has a 320 square foot training room for pre-vocational training and workforce preparation activities. The

training room will also be utilized for employer recruitments with an adjacent private office used for one on one onsite interviews by employers. This facility provides appropriate cubicle office space for employment services staff as well as a welcoming reception area with ample wall space for job postings, community resource postings, and notices.

FCCP serves a diverse client base from low to middle class families and can continue to promote the positive image of Rancho Cordova by encompassing all populations, work backgrounds and education levels into the program. Our location, on the same site as Adult Education for the Folsom Cordova Unified School District, provides easy access for eligible students already on campus to access FCCP's Job Center. The majority of students are low-income or CalWORKS recipients and seeking a high school diploma or equivalent, and many are English Language learners taking ESL classes.

Eligibility assessment will start with a referral form and CalJobs registration completed by a potential client. The form includes basic information on demographics, and employment history where FCCP staff can start to assess and identify potential client motivation to employment. The CalJobs registration allows for clients to access services at any job center in California. Part of the CalJOBS registration process requires clients to identify their employment status, address of residence, current housing situation and disability. This information is used by staff to determine eligibility for JobEx and/or other Job Center programs.

FCCP has in-person and online outreach strategies which have resulted in successful enrollment in its employment services programs and previous RC Workforce Recovery Program. FCCP plans to utilize social media platforms (i.e. Facebook, Instagram, Twitter), public tabling events, and partners like the Folsom Cordova Adult School the Job Center to engage and enroll 90 Rancho Cordova job seekers into the JobEx program.

Once the referral form and CalJobs registration is reviewed by an FCCP staff member, the client is invited to complete an orientation to review and ask questions about the program. After orientation, an indepth intake appointment is scheduled with a Career Specialist (CS) where they will be asked about their immediate needs and employment goals. CS provides information about program services to clients. During this intake process CS will go over and ask clients about current employment status, employment goals, and any barriers to employment. CS will assess any current needs such as food, transportation or childcare. CS will refer to other programs such as, DEA Program, or Refugee Program as appropriate and possible co-enrollment. JobEx will also provide language support if the client faces English proficiency as a barrier to accessing services. When determining eligibility, CS looks at a client's motivation to return to the workforce or seek better employment with higher wages, interest in skill gain, change in careers if applicable. A CS will also look at a clients employment barriers to gauge what individualized career services and case management to provide and develop in a clients plan.

FCCP will provide an enrolled participant to an assigned Career Specialist and the following Individualized Career Case-Managed Services: comprehensive assessment, including academic, professional and transferable skills; customer career planning;and the development of an individual employment plan (IEP). This will provide job seekers with a career pathway plan in an area of projected growth based on their individual interests, aptitudes, strengths and barriers. Additionally, FCCP will provide information about eligible training providers; individual career counseling including comprehensive case management; workforce preparation activities including resume preparation and interviewing skills; short term pre-vocational services; and access to support services. These activities will prepare job seekers for employment by improving their professional/soft skills, increasing their technical skills through approved training and improving their job readiness and employment preparedness. Furthermore, FCCP will provide access to support services as needed to pursue training, job attainment or retention. These activities will further increase employability through family and support services for employment activities. FCCP will continue to work collaboratively with adult education partners to provide ease of enrollment in English language classes, Adult Basic Education, and high school diploma completion services. FCCP will also continue to work collaboratively with partnered training providers for job seekers needing additional skills to improve employability in a growing occupation. Wraparound support will be provided by FCCP's suite of services and robust network of partners in our one stop shop delivery model. This means services will be brought to the customer through on site access or telephone immediate resource introductions.

Individualized Career Services & Case Management Activities:

Individualized career services and intensive case management can consist of the one or more of the following activities:

Comprehensive Assessment-Comprehensive and specialized assessments of the skill levels and service needs of adults, and/or in depth interview and evaluation to identify employment barriers and appropriate goals.

Career Planning- Through conducting career exploration and career assessment FCCP staff will assist clients with building an Individual Employment Plan (IEP) that reinforces employment goals and sets them on viable career pathways providing access to reliable information to assist with alignment with their employment goals.

Career Coaching-FCCP staff will utilize the individualized employment plan to provide one-on-one coaching or workshop facilitation on resume and cover letter writing, interviewing preparation and skills, and job search coaching as needed. Staff will provide Additional career coaching on soft skills as needed and for participants who want to learn more about Personal and

Professional Balance and Dealing With Conflict in the Workplace. This will support participants in employment placement and long term retention.

Customized Coaching & Mentorship-FCCP establishes a holistic and case managed family services modality to include support services for child care, financial supports/scholarships, healthcare access and increased social support to ensure parents can start or advance their careers with the appropriate resources and tools. FCCP staff will use a culturally responsive, trauma informed, and strength based coaching and mentorship to empower participants and especially specialized populations who are BIPOC, LGBT, experiencing homeless to fine-tune their soft skills while gaining autonomy over decision making and reaching self-sufficiency.

Building Professional Networks -FCCP will coordinate onsite and virtual employer recruitment sessions at the Job Center for direct job placement, a Spring Job Fair in collaboration with the Folsom Cordova Adult School. Clients will utilize their networking skills to build professional relationships with employers, discover jobs available in multiple industries or obtain long-term employment.

Training Scholarships – Participants will receive employment training scholarships that match with their IEP goals. Employment training provides accelerated training that helps participants learn specific knowledge or skills to secure employment in a specific career pathway. FCCP will offer at least 10 training scholarships to qualified participants for Adult Education programs and eligible training programs to support participants' success and placement.

Job Site Orientations – FCCP staff will utilize our ever-growing network of local business connections to coordinate job site orientations where clients will visit an employer site to tour the facility. Clients will receive an overview of the company facility and operations with the opportunity to discuss employment opportunities.

Employment Supportive Services- FCCP staff will provide employment supportive services and referrals to clients with identified needs and barriers to employment.

- **In- House Support Services** will include technology, transportation, employment supports covered by the JobEx program to expedite and ease financial costs for employment placement.
- **Out-Source Support Services** will be referrals made by FCCP staff to partnered wrap-around services providers that can support a program participant with Family Violence safety and planning, housing assistance, internet/utilities cost and childcare.

Upon completion of training activities/individualized services and attainment of employment, enrolled participants will be contacted by Career Specialist at minimum once per quarter to track and record continued employment, career development, and earning levels. Case notes

will be made in FCCP's online database and tracking system. Customers will have access to Career Specialist coaching staff and FCCP's Job Center for continued support with career pathway progress, resource referrals, and problem solving post-employment attainment.

The Job Developer will be focusing on employer engagement, referrals and job placement services. They will connect participants to work opportunities in the local community to develop technical and professional skills for their future success.

The Job Developer will create a business engagement plan according to clients career interests and employment goals and schedule meetings with employers and training providers to develop partnerships. FCCP will provide potential partners with an overview of JobEx, benefits of becoming an FCCP partner and chance for employers to discuss hiring needs. Partner employers will provide job site tours and orientation of their business for clients interested in direct hire. Training providers will be provided with a similar overview and discuss tuition costs, enrollment process and job placement after training completion.

The Job Developer will have a master list of employer and training partners sent weekly with current partners and job opportunities for JobEx staff to refer to when meeting with clients. Employment referrals from businesses will go directly to the Job Developer to review and coordinate job placement services. If clients express interest in a job opportunity, business, or training, the assigned Career Specialist will coordinate with the Job Developer for a job site orientation, job placement or enrollment process for training.

Furthermore, FCCP will provide job placement services through Employer Recruitment Sessions and Spring Job Fair. The Job Developer will work closely with the Manager to plan quarterly employer recruitment sessions with partner employers seeking to hire multiple individuals. Employers will provide a presentation on their business, work culture and job opportunities available to job seekers. After the presentations, employers and clients will get a chance to network and interview for direct hire. In the Spring, FCCP will partner with the Folsom Cordova Adult School to plan a Job Fair. The Job Developer will invite partners and new employers to network with clients and interview the same day for job placement. The employer recruitment sessions and Spring Job Fair will expedite the hiring process and allow for both employer and client needs to be met faster.

This project addresses the needs of Rancho Cordova's business community by integrating current labor market relevance in developing a ready labor force, interns and a referral system for connecting individuals to local employment opportunities. JobEx will positively impact Rancho Cordova's business climate and create opportunities for businesses to grow with a talented, local workforce. These components address the City of Rancho Cordova's mission to support and

value the development of children and youth, enhancing education services, improving quality of life for community members, and providing jobs to community residents.

c. Past Performance and Planned Outcomes

FCCP has been providing employment services to the community for ten years through SETA funded activities. Through this endeavor FCCP provided individualized career services including program eligibility, comprehensive assessment, and case management support for various training programs resulting in a training completion rate of 70% or better each year in Occupational Skills Sector Initiatives (OSSI) and Occupational Sector Trainings (OST). These services included technology access for job seekers, assistance with workforce preparation activities including resume preparation and interviewing skills, job search assistance and holding employer recruitments. Each month the Training Center was open, we saw an increase in job seekers seeking basic and individualized supports resulting in a current average of 200 job seekers per month. Folsom Cordova Job Center will exist in this same location within the highest poverty area of Rancho Cordova providing access to job seekers relying on public transportation, walking or biking.

FCCP has established a database for result oriented monitoring outcomes with an experienced Research Evaluation and Technician and will continue to learn and advance our skills to be able to create dashboards and work with the team to identify ways to address areas of need and develop a plan of improvement.

FCCP will develop quarterly performance program targets as a strategy to monitor and measure performance outcomes. All enrolled participants will be listed in a spreadsheet database system that states the participant's program status, employment status, and training status. JobEx staff will be able to update the status of each section in the online database and track individualized career case management activities through casenotes to capture a participant's progress in the program. Salary increase and job placements will be tracked in the database system. Job placements will include the name of employer, address, wage, and title to document the location of the job and salary increase.

The planned performance measures and outcomes of the program are defined in the chart below and will be monitored to meet grant performance outcomes.

Performance Measure	Definition	Program Target
Enrollments	Job seeker in Rancho Cordova seeking skilled-training and employment.	90
Individualized Career Case-Managed Activities	Services provided by Career Specialists and JobEx Program defined in Section 2 under	90

	Individualized Career Services & Case Management Activities.	
Training Scholarships	Accelerated training that helps participants learn specific knowledge or skills to secure employment in a specific career pathway.	10
Total Employment Placements	Combined total of direct employment placements and training scholarship employment placements	50
Direct Employment Placements	Participants who received individualized career services and intensive case management and obtained employment.	40
Training Scholarships to support Employment Placement	Participants who received a training scholarship and obtained employment after completing training.	10

d. Partnerships

FCCP will be working collaboratively with Futuro Health, General Assembly and North State Building Industry Foundation to identify and refer enrolled program participants into skilled training opportunities in the healthcare, technology, energy, contraction, utilities and manufacturing industries. These industries are in high demand and offer living wage salaries.

FCCP will be partnering with Folsom Cordova Unified School District and specific school sites in administration of this program for referrals. Folsom Lake College, Northstate College of Health Sciences, California State University Sacramento and UC Davis are partners with FCCP that provide educational panels and presentations to participants interested in higher education and training.

FCCP also works closely with Sacramento Food Bank, Rancho Cordova Foodlocker, Hagan Community Center, WEAVE, Volunteers of America Transitional Housing, CA Department of Human Assistance and other organizations that will provide wrap-around services to program participants.

FCCP continues to provide home visitation, Safety Net, Family Self-Sufficiency and Family Resource Center services to over 3,000 families annually. Most recently with COVID-19, FCCP advanced its role to include community access to public health COVID site testing in collaboration with the State of California and at the height of the pandemic provided over 500 tests each day the testing site was open. The successful collaboration serving the community

resulted in further funding to provide linkage and financial resources to individuals who tested positive to reduce the risk of spread and provide support for families to safely quarantine.

e. Project Expected Timeline

Milestone	Date	Key Prerequisite Milestone / Contingency
Identify and hire, train key staff	12/1/2022-1/31/2023	Director of Programs and Employment Services Manager have over 5 years of combined experience and will hire and train staff within 30-60 days of hiring.
Review and finalize intake process to be able to track Rancho Cordova residents and establish eligibility requirements.	12/1/2022-1/20/2023	Referral Form and Orientation Presentation
Develop Program & Marketing Timeline of Events	12/1/2022-1/31/2023	Once funding is approved, the Employment Services Manager and staff can develop a timeline of events, supplies and resources needed to plan and execute accordingly.
Program Participant Enrollment	1/23/2023-12/31/2023	90 Participants Enrollments all provided with career services and intensive case management activities.
Individualized Career Services	1/23/2023-12/31/2023	Career Services & Intensive Management Activities tracked through case notes and IEP - Comprehensive Assessment - Career Planning - Career Coaching - Customized Coaching & Mentorship - Building Professional Networks - Training Scholarships - Job Site Orientations - Employment Supports
Employer Recruitment Session #1	Completed by 3/31/2023	Job Developer identifies an employer with multiple job opportunities and will coordinate with JobEx staff to invite clients to session. Attendance and job placement will be tracked

		by Career Specialists in case notes and database.
Spring Job Fair	Completed by 4/30/2023	Manager and Job Developer identify employer partners to invite and coordinate with Folsom Cordova Adult School to schedule a Job Fair event on the school campus. Attendance will be tracked through online registration form and check-in. Job Placement will be tracked in FCCP's database system and Career Specialists' case notes.
Job Placements & Training Placements	1/23/2023-12/31/2023	50 Employment placement 10 Training Scholarships
Employer Recruitment Session #2	Completed by 6/30/2023	Job Developer identifies an employer with multiple job opportunities and will coordinate with JobEx staff to invite clients to session. Attendance and job placement will be tracked by Career Specialists in case notes and database
Employer Recruitment Session #3	Completed by 9/30/2023	Job Developer identifies an employer with multiple job opportunities and will coordinate with JobEx staff to invite clients to session. Attendance and job placement will be tracked by Career Specialists in case notes and database.
Employer Recruitment Session #4	Completed by12/31/2023	Job Developer identifies an employer with multiple job opportunities and will coordinate with JobEx staff to invite clients to session. Attendance and job placement will be tracked by Career Specialists in case notes.
Performance Outcomes and Follow-Up	1/23/2023-12/31/2023	Result Oriented Monitoring Outcome to be established to assist with tracking of milestones. Track Participant Eligibility and Progress in Program.

Section 5: Sources and Uses of Funds-

Provide detailed Sources and Uses tables which clearly state:

a. Each funding source and proposed or committed amount.

The JobEx program does not have any additional funding sources committed to this program. Our requested funding amount will be the only source of funding for this program. JobEx is an expansion of services to the residents of Rancho Cordova.

b. Evidence of funding commitment, for any funds committed.

The JobEx program does not have any additional funding sources committed to this program. Our requested funding amount will be the only source of funding for this program.

c. A table that identifies sources and uses by funding source.

The JobEx program does not have any additional funding sources committed to this program. Our requested funding amount will be the only source of funding for this program.

Section 6: Conflict of Interest Statement

Submit a statement regarding any activities or relationships of the proposer that might create a conflict of interest for the proposer or the city, and, if such activities or relationships exist, a description of the facts, legal implications, and possible effects sufficient to permit the city to appreciate the significance of the conflict and to grant any conflict waiver, if appropriate and necessary.

FCCP is not aware of any Conflicts of Interest as it pertains to our application for the Rancho Cordova Workforce Recovery Program.

Section 7: Exceptions

Note any exceptions to the NOFA requirements in their entirety. The city may reject any requests for modifications to the NOFA requirements that were not noted in response to this NOFA.

FCCP is asking for an exception to providing financial audit reports for FY 2020-2021 and FY 2021-2022. FCCP uses an independent CPA firm to audit its finances every year. Due to the pandemic, FCCP has not completed its FY 2020-2021 audit and is starting the FY 2021-2022 audit. FCCP has provided the FY 2019-2020 audit in Section 8. FCCP will provide the City of Rancho Cordova its FY 2020-2021 and FY 2021-2022 audits once they are available for distribution.

Section 8: Supportive Information

This section may include graphs, charts, photos, resumes, references, etc. in support of the applicants' qualifications and/or project plan.

Attachments included in Section 8: Supportive Information include:

Budget Narrative
FCCP Financial Annual Report FY 2019-2020
Gross / Net Revenue Reports – FY 2020/2021, FY 2021/2022
Evidence of 501 (c)(3) tax‑exempt status
Evidence of current business license
Resumes of Key Staff
Letters of Support

Section 8:

Budget Narrative

Budget Narrative

City of Rancho Workforce Recovery Program
Folsom Cordova Community Partnership
Project Name - JobEx Program

Budget Summary

Personnel Costs	$	324,495.60
Other Program Costs	$	13,781.00
Direct Participant Costs	$	41,000.00
Total	**$**	**379,276.60**

Budget Narrative

	FTE	
Personnel Costs:		
Manager	0.5	$31,200.00
Career Specialist	1	$49,920.00
Career Specialist	1	$49,920.00
Career Specialist	1	$49,920.00
Job Developer	0.5	$24,960.00
Admin Services Coordinator	0.2	$9,984.00
Accounting Admin Director	0.05	$5,000.00
Acounting- Admin Asst	0.05	$2,808.00
Director of Programs	0.25	$20,000.00
Ex Director	0.05	$5,900.00
Fringe Benefits / calculated at 30%		$ 74,883.60
total FTE	4.60	
Other Program Costs:		
Rent: $100 x 1 FTE		$460.00
Insurance Serivces $600 per FTE		$2,760.00
Audit Services $600 per FTE		$2,760.00
Landline/Internet $50 per FTE		$230.00
Mobile: $30 x 12 per FTE		$1,656.00
Mileage: $.625 x 50 of miles per mth x 12 x FTE		$1,725.00
Copier/Printing $100 x 12 mths		$1,200.00
Supplies: General $150 per FTE		$690.00
Supplies: Program $100 x 12mth		$1,200.00
Program Outreach:		$600.00
Staff Training:		$500.00
Direct Participant Cost:		
Training Scholarships		$ 30,000.00
Supportive Services		
Employment Supports		$ 4,000.00
Technology Supports		$ 5,000.00
Transportation Supports		$ 2,000.00

Training Scholarships

	10	placements
$	3,000.00	amount per placement
$	30,000.00	total

Section 8:

FCCP Approved FY 2019-2020

Financial Annual Report and

Gross / Net Revenue Reports

FY 2020/2021 & FY 2021/2022

FOLSOM CORDOVA COMMUNITY PARTNERSHIP

Independent Auditor's Report
and
Financial Statements

June 30, 2020

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INDEPENDENT AUDITOR'S REPORT

NICHOLSON
& OLSON
CERTIFIED PUBLIC
ACCOUNTANTS
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To the Board of Directors
Folsom Cordova Community Partnership
Rancho Cordova, California

Report on the Financial Statements

We have audited the accompanying financial statements of Folsom Cordova Community Partnership (a nonprofit organization), which comprises the statement of financial position as of June 30, 2020, and the related statements of activities and change in net assets, functional expenses, and cash flows for the year then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

To the Board of Directors
Folsom Cordova Community Partnership

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Folsom Cordova Community Partnership as of June 30, 2020, and the change in its net assets and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Supplementary and Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The supplementary information on page 15 is presented for purposes of additional analysis and is not a required part of the financial statements. The accompanying schedule of expenditures of federal awards, as required by Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financials statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated January 18, 2021 on our consideration of Folsom Cordova Community Partnership's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of Folsom Cordova Community Partnership's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Folsom Cordova Community Partnership's internal control over financial reporting and compliance.

Nicholson & Olson

Certified Public Accountants
Roseville, California
January 18, 2021

FINANCIAL STATEMENTS

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Statement of Financial Position
June 30, 2020

Assets		
Current assets:		
Cash and cash equivalents	$	400,266
Grants and contracts receivable		342,121
Prepaid expenses		9,225
Deposits		3,000
Total current assets		754,612
Capital assets:		
Property and equipment net of accumulated depreciation		42,535
Total Assets	$	797,147
Liabilities and Net Assets		
Current liabilities:		
Accounts payable	$	85,456
Accrued expenses		103,994
Total liabilities		189,450
Net assets:		
Without restrictions		576,261
With donor restrictions		31,436
Total net assets		607,697
Total Liabilities and Net Assets	$	797,147

The accompanying notes are an integral part of these financial statements

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Statement of Activities
Year Ended June 30, 2020

	Without Restrictions	With Donor Restrictions	Total
Revenue and Support			
Contributions	$ 36,560	$ -	$ 36,560
Grants and contracts:			
Sacramento Employment & Training Agency	747,711	-	747,711
First Five Sacramento Commission	857,855	-	857,855
Other government and private	489,437	62,119	551,556
Donated goods and services	20,704	-	20,704
Net assets released from restrictions	42,321	(42,321)	-
Total revenue and support	2,194,588	19,798	2,214,386
Other Revenues			
Special events revenue	27,781	-	27,781
Special events expense	(11,987)	-	(11,987)
Net special events	15,794	-	15,794
Interest income	1,598	-	1,598
Other income	18,463	-	18,463
Total other revenues	35,855	-	35,855
Total Revenue, Support, and Other	2,230,443	19,798	2,250,241
Expenses			
Program services			
Birth & Beyond - First 5 Commission	857,855	-	857,855
Birth & Beyond - DHHS	229,801	-	229,801
Employment services	637,368	-	637,368
Youth, Family, Community services	435,415	-	435,415
Total program services	2,160,439	-	2,160,439
Support services			
Management and general	61,545	-	61,545
Fundraising	30,822	-	30,822
Total Expenses	2,252,806	-	2,252,806
Change in net assets	(22,363)	19,798	(2,565)
Net assets, beginning of year	598,624	11,638	610,262
Net assets, end of year	$ 576,261	$ 31,436	$ 607,697

The accompanying notes are an integral part of these financial statements

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Statement of Functional Expenses
Year Ended June 30, 2020

	Birth & Beyond			Other Program Services			Support Services		
	First 5 Commission	DHHS	Subtotal	Employment Services	Youth, Family & Community Services	Total Program Services	Management & General	Fundraising	Total Expenses
Salaries and wages	$ 528,172	$ 130,867	$ 659,039	$ 443,404	$ 187,723	$ 1,290,166	$ 33,094	$ 21,442	$ 1,344,702
Payroll taxes and benefits	139,724	36,235	175,959	119,224	54,011	349,194	8,725	5,725	363,644
Total personnel costs	667,896	167,102	834,998	562,628	241,734	1,639,360	41,819	27,167	1,708,346
AmeriCorps & program consul	10,817	23,110	33,927	30,073	29,660	93,660	-	-	93,660
Assistance to families	795	126	921	1,103	125,777	127,801	84	-	127,885
Accounting & auditing fees	6,198	2,128	8,326	4,476	2,586	15,388	209	153	15,750
Conferences & training	3,930	1,575	5,505	1,934	1,827	9,266	392	-	9,658
Dues, licenses & fees	-	-	-	140	50	190	6,885	-	7,075
Insurance	8,479	2,386	10,865	4,348	3,451	18,664	(1,403)	189	17,450
Office	893	214	1,107	4,288	3,002	8,397	(503)	189	8,083
Postage and shipping	701	103	804	172	108	1,084	1,089	23	2,196
Printing and publications	7,103	1,499	8,602	1,519	621	10,742	659	239	11,640
Program outreach activities	907	120	1,027	2,143	3,449	6,619	2,445	1,000	10,064
Rent	56,932	12,497	69,429	4,270	769	74,468	1,356	821	76,645
Staff development	-	-	-	-	-	-	1,650	-	1,650
Supplies	51,946	8,297	60,243	11,753	16,432	88,428	3,176	70	91,674
Telephone	8,943	2,352	11,295	4,153	3,090	18,538	656	342	19,536
Travel and transportation	4,931	799	5,730	4,368	2,903	13,001	631	629	14,261
Depreciation	-	-	-	-	-	-	15,351	-	15,351
In-kind expenses	-	-	-	-	-	-	20,704	-	20,704
Miscellaneous	474	91	565	-	(44)	521	657	-	1,178
Indirect costs	26,910	7,402	34,312	-	-	34,312	(34,312)	-	-
Total expenditures	$ 857,855	$ 229,801	$1,087,656	$ 637,368	$ 435,415	$ 2,160,439	$ 61,545	$ 30,822	$ 2,252,806

The accompanying notes are an integral part of these financial statements

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Statement of Cash Flows
Year Ended June 30, 2020

Cash Flows from Operating Activities		
Change in net assets	$	(2,565)
Adjustments to reconcile change in net assets to net cash provided (used) by operating activities:		
Depreciation, a noncash expense		15,351
(Increase) decrease in:		
Grants and contracts receivable		75,305
Prepaid expenses		995
Increase (decrease) in:		
Accounts payable		55,586
Accrued expenses		37,268
Deferred income		(5,576)
Net cash provided (used) by operating activities		176,364
Beginning cash and cash equivalents		223,902
Ending cash and cash equivalents	$	400,266

The accompanying notes are an integral part of these financial statements

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Notes to Financial Statements
June 30, 2020

The notes to the financial statements include a summary of significant accounting policies and other notes considered essential to fully disclose and fairly present the transactions and financial position of the Organization as follows:

Note 1 - Summary of Significant Accounting Policies

Note 2 - Grants and Contracts Receivable

Note 3 - Property and Equipment

Note 4 - Net Assets With Donor Restrictions

Note 5 - Lease Commitments

Note 6 - Salary Deferral Plan

Note 7 - Contingencies

Note 8 - Concentrations of Revenue

Note 9 - Liquidity Management

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Notes to Financial Statements
June 30, 2020

Note 1 - Summary of Significant Accounting Policies

This summary of significant accounting policies of Folsom Cordova Community Partnership (the Organization) is presented to assist in understanding the Organization's financial statements. The financial statements and notes are representations of the Organization's management who is responsible for their integrity and objectivity. These accounting policies conform to accounting principles generally accepted in the United States of America and have been consistently applied in the preparation of the financial statements.

Description of Organization

Folsom Cordova Community Partnership is a nonprofit Organization founded in 1992 as the Folsom Cordova Schools Foundation, a community-based Organization with a mission to mobilize and integrate resources that enhance the education, health and well being of the children and families of the community. The Organization brings together community programs and partners to assess and address community needs, thereby, maximizing resources while reducing duplication of services with the end result being a unified, self-sufficient community which is in-tune with its needs and has the ability to resolve its challenges.

Basis of Presentation

Net assets, revenues, gains, and losses are classified based on the existence or absence of donor or grantor-imposed restrictions. Accordingly, the net assets of the Foundation and changes therein are classified as follows:

Net Assets Without Donor Restrictions: Net assets that are not subject to donor-imposed restrictions and may be expended for any purpose in performing the objectives of the Organization. The Board of Directors may designate assets without restrictions for specific operational purposes.

Net Assets With Donor Restrictions: Net assets subject to stipulations imposed by donors and grantors. Some donor restrictions are temporary in nature; those restrictions will be met by actions of the Organization or by the passage of time. Other donor restrictions are perpetual in nature, whereby the donor has stipulated the funds be maintained in perpetuity. When a restriction expires (that is, when a stipulated time restriction ends or purpose restriction is accomplished), net assets are reclassified from net assets with donor restrictions to net assets without donor restrictions and reported in the statement of activities as net assets released from restrictions. Contributions received with donor-imposed restrictions that are met in the same year in which the contributions are received are classified as contributions without restrictions.

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Notes to Financial Statements
June 30, 2020

Note 1 - Summary of Significant Accounting Policies (continued)

Method of Accounting
The financial statements of the Organization have been prepared on the accrual basis of accounting, whereby revenues are recognized when earned and expenses are recognized when the obligation is incurred, rather than when cash is collected or disbursed.

Description of Programs
The Organization's primary mission is to enhance the education, health, and well-being of the children, youth, and adults in the community.

Employment Services provide employment resources and on the job training to individuals and families in Rancho Cordova, Folsom and surrounding areas of Sacramento County.

Youth Services build positive relationships for youth and provides a solid foundation to add support and opportunity to live their lives productively. The program merges youth-centered programming with long-term strategies to decrease youth alcohol and drug use, increase community and school safety and increase access to college and other post-secondary education.

Family Services provide a walk-in resource center that works in partnership with the community to build strong families, meet the needs of growing children and establish a "hub" for community driven activities and services. The center hosts parenting classes, workshops, support groups and family fun night, and other events.

Birth and Beyond is a family centered in-home lesson-based program. The weekly lessons focus on positive self-concept, child development, empathy, alternatives to corporal punishment, nurturing skills and the use of positive communication.

Community Support Services focuses on meeting the basic needs of the community while acting as the "gateway" to the Organization's other programs and services. The program provides one-to-one crisis assessment, community-based advocacy, resource and referrals and short-term solution focused case management. Services include emergency supplies of food and diapers, utility shut off prevention, eviction prevention, emergency shelter and transportation assistance.

Cash and Cash Equivalents
The Organization considers all cash accounts, which are not subject to withdrawal restrictions or penalties, and all highly liquid debt instruments purchased with a maturity of three months or less to be cash equivalents.

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Notes to Financial Statements
June 30, 2020

Note 1 - Summary of Significant Accounting Policies (continued)

Concentration of Credit Risk
The Organization maintains a significant portion of its cash with one financial institution, which is insured by the Federal Deposit Corporation (FDIC) up to $250,000. At June 30, 2020, bank balance exceeded FDIC limits by approximately $97,000. Management believes the Organization is not exposed to any significant credit risk related to cash.

Grants and Contracts Receivables
Grants and contracts receivable consist of noninterest-bearing amounts and are based on agreements with various agencies and organizations. These amounts represent expenditures for which reimbursement has been requested but not yet received. Management believes all grants and contract receivables to be fully collectible; therefore, no allowance for doubtful accounts is considered necessary.

Capital Assets
Property and equipment are recorded at cost. Donations of property and equipment are recorded at their estimated fair market value on the date of donation. Depreciation and amortization are provided using the straight-line method over the estimated useful lives of the assets which range from three to five years. When assets are sold or otherwise disposed of, the cost and related depreciation are removed from the accounts, and any resulting gain or loss is included in the statements of activities. Maintenance and repairs, which do not improve or extend the lives of the respective assets, are expensed as incurred.

Compensated Absences
Employees for the Organization are entitled to paid annual leave depending on job classification and length of service, which is payable upon termination of the employee. Annual leave accruals are recorded in the financial statements as accrued expenses totaling $52,170 at June 30, 2020.

Deferred Revenue
Payments received in advance for services and events to be provided in future fiscal years are recorded as deferred revenue and are recognized as revenue when the goods or services have been provided. Revenue recognized includes $5,576 which was included in deferred revenue at the beginning of the year.

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Notes to Financial Statements
June 30, 2020

Note 1 - Summary of Significant Accounting Policies (continued)

Revenue Recognition

The majority of the Organization's revenue is derived from cost-reimbursable federal and state contracts and grants, which are conditioned upon certain performance requirements and/ or the incurrence of allowable qualifying expenses. Amounts received are recognized as revenue when the expense has been incurred in compliance with specific contract or grant provisions. Amounts received prior to incurring qualifying expenditures are reported as refundable advances in the statement of financial position. No amounts have been received in advance under the federal and state contracts and grants at June 30, 2020.

Special events revenue is comprised of an exchange element based upon the direct benefits donors receive and a contribution element for the difference. The Organization recognizes special events revenue equal to the fair value of direct benefits to donors when the special event takes place and recognizes the contribution element immediately, unless there is a right of return if the special event does not take place.

Donated Goods and Services

Contributions of donated non-cash assets are recorded at their fair values in the period received. Contributions of donated services that create or enhance non-financial assets or that require specialized skills, are provided by individuals possessing those skills, and would typically need to be purchased if not provided by donation, are recorded at their fair values in the period received. For the year ended June 30, 2020, $20,704 has been included in the statement of activities as in-kind revenues and in the statement of functional expenses as in-kind expenses.

Numerous volunteers have made contributions of their time to the Organization to deliver programs and raise operating funds. The value of this contributed time is not reflected in these financial statements as they do not meet the criteria for recognition under Generally Accepted Accounting Principles.

Income Tax Status

The Organization is tax-exempt under Section 501(c)(3) of the Internal Revenue Code and Section 23701(d) of the California Revenue and Taxation Code. Therefore, it is not obligated to pay Federal or State income taxes unless its unrelated business income exceeds $1,000. There are no uncertain tax positions or other provisions for income taxes that should be recognized in these financial statements. Generally, the Organization's tax returns remain open for three years for federal income tax examination and four years for state income tax examinations.

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Notes to Financial Statements
June 30, 2020

Note 1 - Summary of Significant Accounting Policies (concluded)

Use of Estimates
The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Fair Value Measurements
Generally accepted accounting principles require fair value to be measured by maximizing the use of observable inputs and minimizing the use of unobservable inputs. There are three levels of inputs that may be used to measure fair value; Level 1 uses quoted prices and active markets for identical assets or liabilities when determining fair market value; Level 2 uses non-active quoted prices for similar assets and liabilities that can be corroborated with market data; and Level 3 uses unobservable information with little or no market data. The Organization reports assets and liabilities using Level 1 inputs.

Functional Allocation of Expenses
The costs of providing the Organization's various programs and other activities have been summarized on a functional basis in the statement of activities. Expenses are charged to each program based on specific expenditures incurred. Certain expenses are attributable to more than one program or supporting function. Therefore, expenses require allocation on a reasonable basis that is consistently applied. Expenses that are allocated include salaries and payroll related expenses, occupancy, professional fees, insurance, and depreciation which are allocated based on square footage or salary expenditures in that program area.

Subsequent Events
Management of the Organization has evaluated subsequent events through January 18, 2021, the date the financial statements were available to be issued and has determined that no events have occurred that require additional disclosure.

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Notes to Financial Statements
June 30, 2020

Note 2 - Grants and Contracts Receivable

At June 30, 2020, the following amounts were receivable from the following funding sources:

California Department of Social Services	$ 29,531
City of Rancho Cordova	9,304
County of Sacramento Department of Health & Human Services	21,703
First Five County of Sacramento Commission	199,235
County of Sacramento Employment Training Agency	81,091
Others	1,257
Total grants and contracts receivable	$ 342,121

Note 3 - Property and Equipment

Property and Equipment at June 30, 2020 consists of the following:

Vehicles	$ 31,781
Office equipment & furniture	67,272
Tenant improvements	78,921
	177,974
Less accumulated depreciation	(135,439)
Net property and equipment	$ 42,535

Depreciation expense for the year ended June 30, 2020 amounted to $15,351.

Note 4 - Net Assets With Donor Restrictions

At June 30, 2020, net assets with donor restrictions were available for the following purposes:

Family services	$ 10,491
Youth services	20,945
Total temporarily restricted net assets	$ 31,436

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Notes to Financial Statements
June 30, 2020

Note 5 - Lease Commitments

The Organization leases office facilities and office equipment under long-term operating leases through July 2023 and June 2025. Total rent expense relating to office facilities and office equipment amounted to $76,646 and $3,900 respectively for the year ending June 30, 2020. Future minimum lease payments under these long-term operating leases are as follows:

Year Ending June 30	
2021	$ 80,097
2022	82,359
2023	84,682
2024	11,473
2025	4,800
Total future minimum lease payments	$ 263,411

Note 6 - Employee Benefit Plans

Salary Deferral
The Organization provides an Internal Revenue Code section 401(k) salary deferral plan for the benefit of all employees, which allows them to defer a portion of their annual compensation. The Board of Directors may elect to make contributions to the plan on an annual basis. No contribution was authorized for the year ended June 30, 2020.

Flexible Benefit Plan
The Organization maintains a flexible spending plan (cafeteria plan) for qualifying employees, which allows each employee to choose between receiving compensation or funding one or more tax-free benefits. At June 30, 2020, the Organization provides between $500 and $900 per month to each employee under this plan.

Note 7 - Contingencies

The Organization's contracts are subject to inspection and compliance audits by the appropriate governmental funding agencies. The purpose is to determine whether program funds were used in accordance with their respective guidelines and regulations. The potential exists for disallowance of previously funded program costs. The Organization has not experienced any disallowances of program costs from these governmental audits. Management cannot reasonably estimate any ultimate potential liability and believes it is not exposed to any significant risk, which may result from these governmental audits. Accordingly, the Organization has recorded no provision for the possible disallowance of program costs on its financial statements.

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Notes to Financial Statements
June 30, 2020

Note 8 - Concentrations of Revenue

The Organization operates certain programs, which are dependent on continued funding from government agencies. If a significant reduction from these sources occurred, the organization's ability to maintain related programs would be significantly impacted. For the year ended June 30, 2020, the Organization received approximately 91% of its revenues and support from various government agencies as follows:

First 5 Commission	38%
Sacramento Employment Training Agency	33%
Other agencies	20%
	91%

Note 9 - Liquidity Management

The following reflects the Organization's financial assets as of June 30, 2020, reduced by amounts not available for general use because of contractual or donor-imposed restrictions within one year.

Cash and cash equivalents	$ 400,266
Accounts receivable	342,121
Financial assets available	742,387
Less: amounts unavailable for general expenditures within one year, due to contractual or donor-imposed restrictions	(31,436)
Financial assets available to meet cash needs for general expenditures within one year	$ 710,951

The Organization's programs and overhead are supported primarily with cost-reimbursement government and private grants and cash needs are expected to be met on a monthly basis. There are no internal limitations or board designations on available resources. The Organization's goal is to maintain financial assets at a level equal to 90-180 days of operating expenses. As part of the liquidity management plan, cash in excess of daily requirements is maintained in money market funds. The Organization continues to manage its liquidity by developing annual operating budgets that provide sufficient funds to support operating expenditures, liabilities, and other obligations.

OTHER REPORTS

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
First 5 Commission Expenditures
Year Ended June 30, 2020

	First 5 Commission	DHA CalWorks	Total First 5 Commission Expenditures
Revenue and Support			
Grants and contracts	$ 566,746	$ 291,109	$ 857,855
Expenses			
Salaries and wages	329,692	198,480	528,172
Payroll taxes and benefits	88,024	51,700	139,724
AmeriCorps & program consultants	9,667	1,150	10,817
Assistance to families	795	-	795
Accounting & audit fees	4,986	1,212	6,198
Conferences & training	2,282	1,648	3,930
Dues, licenses & fees	-	-	-
Insurance	6,420	2,059	8,479
Office	658	235	893
Postage and shipping	626	75	701
Printing and publications	5,438	1,665	7,103
Program outreach activities	635	272	907
Rent	43,740	13,192	56,932
Supplies	41,818	10,128	51,946
Telephone	6,864	2,079	8,943
Travel and transportation	4,134	797	4,931
Miscellaneous	474	-	474
Indirect costs	20,493	6,417	26,910
Subtotal	566,746	291,109	857,855
Capitalized purchases	-	-	-
Total expenditures	566,746	291,109	857,855
Change in net assets	$ -	$ -	$ -

The accompanying notes are an integral part of these financial statements

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

To the Board of Directors
Folsom Cordova Community Partnership
Rancho Cordova, California

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of Folsom Cordova Community Partnership (a non-profit organization), which comprise the statement of financial position as of June 30, 2020 and the related statements of activities, functional expenses, and cash flows for the year then ended, and the related notes to the financial statements and have issued our report thereon dated January 18, 2021.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered Folsom Cordova Community Partnership's internal control over financial reporting to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the organization's internal control. Accordingly, we do not express an opinion on the effectiveness of Folsom Cordova Community Partnership's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect and correct, misstatement on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit, we did not identify any deficiencies in internal control over financial reporting that we considered to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether Folsom Cordova Community Partnership's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the organization's internal control or compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Organization's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Nicholson & Olson

Certified Public Accountants
Roseville, California
January 18, 2021

INDEPENDENT AUDITOR'S REPORT ON COMPLIANCE FOR EACH MAJOR PROGRAM AND ON INTERNAL CONTROL OVER COMPLIANCE REQUIRED BY THE UNIFORM GUIDANCE

Board of Directors
Folsom Cordova Community Partnership
Rancho Cordova, California

Report on Compliance for Each Major Federal Program

We have audited Folsom Cordova Community Partnership's compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of Folsom Cordova Community Partnership's major federal programs for the year ended June 30, 2020. The Organization's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with the requirements of laws, regulations, contracts, and grants applicable to its federal programs.

Auditor's Responsibility

Our responsibility is to express an opinion on compliance for each of Folsom Cordova Community Partnership's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirement for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the Organization's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of Folsom Cordova Community Partnership's compliance.

Opinion on Each Major Federal Program

In our opinion, Folsom Cordova Community Partnership complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2020.

Report on Internal Control Over Compliance

Management of Folsom Cordova Community Partnership is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the Folsom Cordova Community Partnership's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program, and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of Folsom Cordova Community Partnership's internal control over compliance.

A *deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A *material weakness* in internal control over compliance is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Purpose of this Report

The purpose of this report on internal control over compliance is soley to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Nicholson & Olson

Certified Public Accountants
Roseville, California
January 18, 2021

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2020

Federal Grantor/Pass-through Grantor/Program or Cluster	Federal CFDA Number	Pass-through Identification Number	Federal Expenditures
US Department of Health & Human Services			
Pass-through Programs from:			
Sacramento Employment & Training Agency			
CSBG - Safety Net Services	93.569	20C208FSS	$ 23,997
CSBG - Family Self Sufficiency	93.569	20C208SN	52,471
Total Community Services Block Grant			76,468
Sacramento Employment & Training Agency			
Refugee Social Services - Vocational ESL	93.566	203430RS-18(E2)	57,493
Refugee Social Services - Employment Services	93.566	203430RS-18(E2)	90,991
Refugee Social Services - VESL - OJT	93.566	208430RS-19(E)	104,903
California Departament of Social Services			
YMP Youth Mentoring Program	93.566	YMP19FCCP	42,887
Total Refugee & Entrant Assistance State Grants			296,274
Sacramento County Department of Human Assistance			
Expanded Subsidized Employment	93.558	DHA-FCCP-01-20	25,051
California Departament of Social Services			
Child Abuse Prevention Council of Sacramento			
Foster Care Title IV-E	93.658	7805000-19/20-583	229,901
Office of Child Abuse Prevention			
Child Abuse & Neglect State Grants	93.669	EE-FCCP-18-21	44,214
Office of Child Abuse Prevention	93.590	EE-FCCP-18-21	29,476
First Five Families	93.590	18/19-EP-285-A1	5,565
Total Community Based Child Abuse Grant			35,041
Total US Department of Health & Human Services			**$ 706,949**
US Department of Labor			
Pass-through Sacramento Employment & Training Agency			
Workforce Innovation and Opportunity Act (WIOA)			
SWCS - Adult Funds	17.258	208201SWSC (E3)	196,218
SWCS - Dislocated Workers	17.278	208201SWSC (E3)	69,527
Disability Employment Accelerator / OJT	17.258	208999DEA	19,143
Out of School Youth	17.259	208301OS-19 (E2)	133,030
Total WIOA Cluster	**Total US Department of Labor**		**$ 417,918**
US Department of Housing & Urban Development			
Pass-through from City of Rancho Cordova			
Community Development Block Grant	14.218	197-2018-1	**$ 27,539**
US Department of Homeland Security			
Pass-through from United Way Worldwide			
Emergency Food & Shelter National Board Program	97.024	Phase 36	**$ 7,093**
Total Expenditures of Federal Awards			**$ 1,159,499**

See accompanying Notes to Schedule of Expenditures of Federal Awards

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Notes to Schedule of Expenditures of Federal Awards
Year Ended June 30, 2020

Note 1 - Basis of Presentation

The accompanying schedule of expenditures of Federal awards includes the Federal award activity of Folsom Cordova Community Partnership, under programs of the federal government for the year ended June 30, 2020 in accordance with the requirements of Title 2 U. S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Because the Schedule presents only a selected portion of the operations of the Organization, it is not intended to and does not present the financial position, changes in net assets, or cash flows of Folsom Cordova Community Partnership.

Note 2 - Summary of Significant Accounting Policies

Expenditures reported on the schedule are reported on the accrual basis of accounting. Such expenditures are recognized following the cost principles contained in Title 2 U. S. *Code of Feral Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards*, wherein certain types of expenditures are not allowed or are limited as to reimbursement.

Note 3 - De Minimis

Folsom Cordova Community Partnership has elected to not use the ten (10) percent de minimis indirect cost rate as covered in section 200.414 of the Uniform Guidance for Federal Awards. Instead of electing a ten (10) percent de minimis indirect cost rate, the Organization has a cost allocation plan approved by the granting agencies.

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
Schedule of Findings and Questioned Costs
Year Ended June 30, 2020

A. SUMMARY OF AUDITOR'S RESULTS

Financial Statements

1. Type of auditor's report issued:	Unmodified
2. Internal control over financial reporting:	
a. Material weaknesses identified?	No
b. Significant deficiencies identified not considered to be material weaknesses?	None reported
3. Noncompliance material to financial statements noted?	No

Federal Awards

1. Internal control over major programs:	
a. Material weaknesses identified?	No
b. Significant deficiencies identified not considered to be material weaknesses?	None reported
2. Type of auditor's report issued on compliance for major programs:	Unmodified
3. Any audit findings disclosed that are required to be reported in accordance with 2CFR Section 200.516(a)?	No

4. Identification of major programs:

CFDA Cluster	Name of Federal Program or Cluster
93.566	U.S. Department of Health & Human Services Refugee & Entrant Assistance State Grants

5. Dollar threshold used to distinguish between Type A and Type B programs	$750,000
6. Auditee qualifies as low-risk auditee under 2CFR Section 200.516(a):	Yes

B. FINDINGS – FINANCIAL STATEMENT AUDIT

None

C. FINDINGS AND QUESTIONED COSTS – MAJOR FEDERAL PROGRAM AUDIT

None

D. PRIOR YEAR FINDINGS

None

2:54 PM
10/20/22
Accrual Basis

Folsom Cordova Community Partnership
Profit & Loss
July 2020 through June 2021

	Jul '20 - Jun 21
Ordinary Income/Expense	
Income	
40000 · CONTRIBUTIONS - GENERAL	11,251.57
41000 · BOARD GIVING	2,611.07
42100 · Major Donor Contributions	6,500.00
43000 · EVENT REVENUE	2,250.00
44000 · GRANTS & CONTRACTS INCOME	2,891,041.47
44200 · RESTRICTED DONATIONS	8,600.00
44500 · ADMINISTRATION FEES /GRANTS	15,764.69
45000 · INTEREST INCOME	864.22
49000 · CONTRIBUTIONS- WORKPLACE GIVING	3,461.36
Total Income	2,942,344.38
Gross Profit	2,942,344.38
Expense	
60000 · SALARIES & WAGES	1,675,438.73
60002 · Fringe Benefits	374,391.23
60003 · Payroll Adjustment & Deductions	-1,274.25
60007 · Vacation Expense	18,134.00
61001 · AUDIT FEES	15,750.00
61005 · ADMINISTRATION FEES/GRANTS	0.00
61010 · ADVERTISING / MEDIA / OUTREACH	6,464.82
61015 · ASSISTANCE TO FAMILIES	413,364.79
61017 · AMERICORPS MEMBER	7,512.65
61025 · BANK FEES and CREDIT CARD FEES	88.25
61035 · CONFERENCES / TRAININGS	10,361.42
61040 · Program Contract Serv/ Consult	175,922.11
61045 · DUES & MEMBERSHIPS	198.00
61059 · COMMUNITY EVENT EXPENSE	6,498.40
61060 · FUNDRAISING EVENT EXPENSE	144.00
61061 · Background/DMV check	597.33
61085 · INCENTIVES & ACTIVITIES	10,060.00
61090 · INSURANCE	17,613.99
61105 · LICENSES & FEES	6,570.52
61120 · POSTAGE & SHIPPING	1,136.70
61125 · PROGRAM OUTREACH ACTIVITIES	5,941.77
61130 · RENT & UTILITIES	82,838.80
61140 · EMPLOYEE TEAM BUILDING	712.09
61145 · SUPPLIES / MATERIALS - OFFICE	7,125.22
61146 · SUPPLIES/MATERIALS PROGRAM	143,440.05
61150 · Landline/Internet/Communication	7,162.51
61151 · Mobile Communication	16,081.99
61155 · MILEAGE	3,734.01
61156 · VEHICLE FUEL	129.07
61165 · VEHICLE MAINTENANCE	396.00
65030 · PRINTING & COPYING	2,049.63
Total Expense	3,008,583.83
Net Ordinary Income	-66,239.45
Net Income	**-66,239.45**

2:55 PM
10/20/22
Accrual Basis

Folsom Cordova Community Partnership
Profit & Loss
July 2021 through June 2022

	Jul '21 - Jun 22
Ordinary Income/Expense	
Income	
Sales	21,631.03
40000 · CONTRIBUTIONS - GENERAL	34,184.43
41000 · BOARD GIVING	283.82
42100 · Major Donor Contributions	500.00
43000 · EVENT REVENUE	3,889.00
44000 · GRANTS & CONTRACTS INCOME	3,231,790.25
44200 · RESTRICTED DONATIONS	250.00
44500 · ADMINISTRATION FEES /GRANTS	12,915.30
45000 · INTEREST INCOME	142.52
49000 · CONTRIBUTIONS- WORKPLACE GIVING	3,442.65
49700 · Misc Income	2,425.00
Total Income	3,311,454.00
Gross Profit	3,311,454.00
Expense	
60002-2 Fringe Benefits	0.00
General Supply Pool (deleted)	-462.80
60000 · SALARIES & WAGES	1,575,108.93
60002 · Fringe Benefits	381,175.67
60003 · Payroll Adjustment & Deductions	8,715.94
60007 · Vacation Expense	11,339.90
61001 · AUDIT FEES	16,750.00
61005 · ADMINISTRATION FEES/GRANTS	3,816.00
61010 · ADVERTISING / MEDIA / OUTREACH	3,438.30
61015 · ASSISTANCE TO FAMILIES	410,034.26
61017 · AMERICORPS MEMBER	23,389.24
61025 · BANK FEES and CREDIT CARD FEES	280.34
61035 · CONFERENCES / TRAININGS	7,226.40
61040 · Program Contract Serv/ Consult	158,069.98
61041 · Gen'l Contract Serv/ Consultant	144.00
61045 · DUES & MEMBERSHIPS	2,029.89
61059 · COMMUNITY EVENT EXPENSE	1,800.10
61061 · Background/DMV check	681.00
61085 · INCENTIVES & ACTIVITIES	8,613.00
61090 · INSURANCE	17,812.89
61105 · LICENSES & FEES	6,145.61
61111 · PROGRAM EQUIPMENT PURCHASE	45,545.89
61120 · POSTAGE & SHIPPING	839.01
61125 · PROGRAM OUTREACH ACTIVITIES	62,361.22
61130 · RENT & UTILITIES	93,431.92
61140 · EMPLOYEE TEAM BUILDING	1,853.65
61145 · SUPPLIES / MATERIALS - OFFICE	15,320.17
61146 · SUPPLIES/MATERIALS PROGRAM	138,720.72
61150 · Landline/Internet/Communication	5,635.35
61151 · Mobile Communication	11,143.35
61155 · MILEAGE	2,967.34
61156 · VEHICLE FUEL	40.90
61165 · VEHICLE MAINTENANCE	421.93
61170 · VOLUNTEER APPRECIATION	598.87
65030 · PRINTING & COPYING	1,275.46
Total Expense	3,016,264.43
Net Ordinary Income	295,189.57

2:55 PM
10/20/22
Accrual Basis

Folsom Cordova Community Partnership
Profit & Loss
July 2021 through June 2022

	Jul '21 - Jun 22
Other Income/Expense	
Other Expense	
Reconciliation Discrepancies-1	-27.86
Total Other Expense	-27.86
Net Other Income	27.86
Net Income	**295,217.43**

Section 8:

Evidence of 501 (c)(3) tax-exempt status

Evidence of Current Business License from the City of Rancho Cordova

Internal Revenue Service
Director, Exempt Organizations
Rulings and Agreements

Department of the Treasury
P.O. Box 2508
Cincinnati, Ohio 45201

Date: MAY 06 2008

THE FOLSOM CORDOVIA COMMUNITY
PARTNERSHIP
10455 INVESTMENT CIRCLE
RANCHO CORDOVA CA 95670

Employer Identification Number:
68-0271664
Person to Contact - ID#:
Jacob A. McDonald – 31-08661
Contact Telephone Number:
877-829-5500 Phone
Public Charity Status:
509(a)(2)

Dear Applicant:

Our letter dated August 1992 stated that you were exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code and classified as a public charity under section 509(a)(3) of the Code.

Based on the information you submitted, we have modified your public charity status to the Code section listed in the heading of this letter. Since your exempt status was not under consideration, you continue to be classified as an organization exempt from Federal income tax under section 501(c)(3) of the Code.

Publication 557, Tax-Exempt Status for Your Organization, provides detailed information about your rights and responsibilities as an exempt organization. You may request a copy by calling the toll-free number for forms, 800-829-3676. Information is also available on our Internet Web Site at www.irs.gov.

Because this letter could help resolve any questions regarding your exempt status, you should keep it in your permanent records.

If you have any questions, please call our toll free number shown in the heading of this letter.

Sincerely,

Robert Choi

Robert Choi
Director, Exempt Organizations
Rulings and Agreements

CITY OF RANCHO CORDOVA

2729 Prospect Park Drive • Rancho Cordova, CA 95670 • (916) 851-8737

BUSINESS LICENSE

License not transferable • Not valid at any other location • Post in conspicuous place

EFFECTIVE DATE	EXPIRATION DATE	LICENSE NUMBER
5/23/2022	**5/23/2023**	**LIC311964**

BUSINESS TYPE: **81: OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)**

CONDITIONS

- **COMPLY WITH RANCHO CORDOVA ORDINANCES, CODES & REGULATIONS**
- **A CERTIFICATE OF OCCUPANCY IS REQUIRED FOR THIS BUSINESS. PLEASE CONTACT THE BUILDING DEPARTMENT AT 916.851.8760 TO DETERMINE COMPLIANCE.**

COMMUNITY BASED NON-PROFIT ORGANIZATION

OWNER(S)

FOLSOM CORDOVA COMMUNITY PARTNERSHIP

FOLSOM CORDOVA COMMUNITY PARTNERSHIP
P.O. BOX 3227
RANCHO CORDOVA, CA 95741-3227

LOCATION
10665 COLOMA RD, 200
RANCHO CORDOVA, CA 95670

This license is issued without verification that the holder is subject or exempted from licensing by the state, county, federal government, or any other government agency.

Section 8:

Resumes of Key Staff

Doris Cortez

Sacramento, CA | 279-200-2532 | decortez@ucdavis.edu | dcortez@thefccp.org

Professional Profile:

Strategic, organized and highly adaptable leader with a holistic and systems approach to program, resource, and professional development. Experienced in building and delivering youth and employment services through effective program coordination, management, marketing and community engagement. Faces challenges enthusiastically to achieve consistent quality results. Improves processes to maximize productivity and streamline cross-functional collaboration. Bilingual in Spanish and English

Education

Bachelor of Arts in Psychology and Political Science with a Minor in Gender, Sexuality and Women's Studies
University of California, Davis | June 2019

Key Skills & Qualifications

- Strategic Planning
- Program Development
- Partnership Building
- Job Development
- Communication (Oral/Written/ Interpersonal)
- Microsoft Off. Suite
- Professional Staff Development
- Client-centered approach
- HR & Staffing
- Crisis Management
- Culturally-Responsive
- Grant Writing
- Budgeting

Relevant Experience

Director of Programs- Youth & Employment Services | Folsom Cordova Community Partnership | Rancho Cordova, CA | Sept 2022- Present

- Direct management and responsibility of assigned departments and program management staff.
- Ensure compliance with all aspects of assigned departments' grants and contracts including but not limited to: performance outcome measures, quality assurance,reporting, budgets, evaluation, insurance requirements etc.

Youth Services Manager | Folsom Cordova Community Partnership | Rancho Cordova, CA | Aug 2021- Present

- Formalized 6 grant funded youth services programs through standardization of operating procedures, providing 5 dynamic and trauma informed staff trainings, targeted community outreach in Sacramento County/Rancho Cordova, building new employer, education and community partnerships and data tracking systems
- Strategically developed annual, quarter and monthly program goals to ensure measurable outcomes are defined, tracked and reported to city, state and federal funding departments
- Supported Director of Programs with preparing and writing grant proposals and program reports; trained new manager on program and professional development
- Recruits,trains and supervises a team of 6 while providing individualized professional development, corrective and/or performance improvement plans and further support as needed
- Integrated social-emotional learning tools and curriculum to enhance all youth programs

Employment Specialist/Job Developer | Women's Empowerment | Sacramento, CA | Nov 2019- Aug 2021

- Coordinated 10 training programs and taught 4 job readiness and empowerment programs while working with an interdisciplinary team to foster curriculum and resources to the client and client's family mental and physical safety and needs; monitored progress
- Cultivated 22 employers to create direct job pipelines; made referrals to educational, employment, governmental and mental health resources
- Supervised and provided case management support, crisis intervention and individual action plan for new and previous clients experiencing unemployment, homelessness, domestic violence and other mental, physical and health issues
- Developed and implemented a quarterly 5 day program with job readiness education and writing workshops to increase job retention services; Incorporated goal management and stress reduction education into program

Committee Chair | Women's Empowerment Diversity Equity & Inclusion Committee | July 2020- Aug 2021

- Implemented a yearly strategic plan to increase staff diversity, equity and inclusion through data driven assessments, trainings, organizational development and policies; recruited agency instructor for all staff trainings
- Manages biweekly meetings, members' tasks and duties, and offers ongoing support to process incidents of discrimination and/or safety concerns within organization
- Works closely with executive management team to maintain continuity of creating and fostering a safe and inclusive environment, built upon respect, for all cultures and identities within staff
- Provides free and affordable educational and community resources for social, economic and political topics/issues

Additional Experience

- **Executive Analyst to Vice Provost| Office of Public Scholarship and Engagement | Davis, CA | Sept 2019-Nov 2019**
- **Marketing Assistant | UC Davis Internship & Career Center | Sept 2018- Sept 2019**
- **Outreach Assistant |UC Davis Internship & Career Center | Davis, CA| Sept 2017-Sept 2019**
- **Legislative Intern| Governor's Office of Legislative Affairs| Sacramento, CA |Aug 2018-Dec 2018**

Leadership

- **Committee Chair | Associated Students of the UC Davis (ASUCD) Student Health & Wellness Committee |Davis, CA| Nov. 2016-Dec. 2017**
- **President | UC Davis Latin Dance Club Baile De Fuego |Davis, CA | June 2016- June 2017**
- **Mental Health Deputy Director| Associated Students of UC Davis Mental Health Initiative |Davis, CA| Sept 2016-Feb 2017**

Accomplishments

- **Folsom Cordova Community Partnership**
    - Approximately served over 150 youth ages 9-24 within the 2021-2022 program year
    - 11 employment placements as a result of collaboration with Hagan Community Center on 2 Hiring Events
    - Trained and Advised Employment Services Manager on Program Development for the launch of the Workforce Recovery & Moms Back to Work Program
    - Developed and supported the implementation of Standard Operating Procedures for all Job Center Staff

- **Women's Empowerment**
    - Created the Diversity, Equity & Inclusion Committee
    - Created Work Ready Academy job readiness intensive
    - In 2019, contributed to the success of 148 alumni job placements and 80% of students securing a job or enrollment into education/training programs

- **UC Davis Internship & Career Center**
    - Serves an Alumni Speaker for university wide panels and events
    - Developed and formalized the Social Media & Marketing Department
    - Outreach- Coordinated the double increase of events which multiplied career services requests by 76% in 2017-2018
    - Implemented and streamlined the event planning process of Shine While You Dine
        - Event for students of color to meet and network with professionals in STEM

Certifications & Trainings

- ***Mandated Child Abuse Reporting Training*** | *Child Abuse Prevention Council of Sacramento |June 2021*
- ***Secondary Trauma Training Certification*** |*Warren Coalition | June 2021*
- ***Commercial Sexual Exploitation of Children Training***|*Child Abuse Prevention Council of Sacramento, Inc.| May 2021*
- ***Trauma Informed Care Certification*** | *Warren Coalition | Dec 2020*
- ***Grant Writing 101 Certification*** | *Sacramento County |Sept 2019*
- ***Mental Health First Aid Certification***| *Mental Health Act | May 2019*

Edith Pacheco

Versatile, goal-oriented workforce professional with experience in delivering employment services to community members and developing partnership with local employers. Proficient in assessing needs and connecting community members with resources. Driven to support staff and cultivate an inclusive environment.

Rancho Cordova, CA95670· 916-470-5169 · edithpachecomirand@csus.edu· edith_pm@icloud.com

RELEVANT EXPERIENCE

Employment Services Manager

Folsom Cordova Community Partnership · Oct 2021 - Present

- Oversaw Workforce Innovation and Opportunity Act (WIOA) Program and RC Workforce Recovery Program. Supervised and supported 4 Career Specialist.
- Launched RC Workforce Recovery Program and conducted program planning to meet funding targets.
- Trained staff to ensure compliance with all federal and state guidelines required for each program.
- Developed partnerships with local employers , assisted in recruitment functions and promotion of job postings.
- Planned and executed Fall Job Fair in partnership with the Folsom Cordova Adult School.
- Coordinated advertisement of services in social media platforms such us Facebook and Instagram.
- Managed Job Center monthly calendar and ensured posting of upcoming events.
- Monitored CalJobs and Workforce Development databases for completeness and accuracy.
- Organized program data to ensure appropriate services are provided to community members.
- Assisted in development and submission of grant proposals, budgets and supporting documents for programs.
- Collaborated with Folsom Cordova Adult School to connect students with training and employment opportunities.
- Developed, coordinated and conducted Job Readiness Workshops to assist job seekers with barriers to employment such as skills deficient, low income and homelessness.

Site Supervisor

Folsom Cordova Community Partnership · Sept 2020 - Sept 2021

- Facilitated group meetings, orientations and workshops. Trained staff on WIOA Directives and support services eligibility.
- Collaborated with management in the WIOA program audit preparations. Reviewed program documentation with staff to ensure compliance.
- Developed customer Individualized Employment Plans including short and long term career goals, barriers to employment, plans to resolve barriers, transferable skills and job readiness training.
- Administered and reviewed results of vocational and employment- related test designed to identify skills and interests of eligible participants.
- Assessed clients' employment goals and evaluated them in relation to the customer's current transferable or potential skills in relevance to the local labor market conditions.
- Collected program data, reports, evaluations and tracked outcomes for grant reports.

EDUCATION

Bachelors of Arts in Political Competence in Human Services

California State University, Sacramento Fall 2020

Associate of Arts in Political Science

Sacramento City College Spring 2013

KEY SKILLS & QUALIFICATIONS

- Bilingual in Spanish/ English
- Effective Communication
- Human Centered Approach
- Problem Solving Skills
- Program Development
- Strategic Planning
- Partnership Building
- Process Improvement
- Reporting
- Team Building & Leadership
- Microsoft Off. Suite
- Google Docs

Training Coordinator

Folsom Cordova Community Partnership · Sept 2019 - Aug 2020

- Managed an active caseload of up to 35 clients faced with unemployment and barriers to employment by providing pre-employment services and referrals to community programs.
- Conducted career counseling and guidance in training programs with the general public including first generations college students and individuals with limited English proficiency.
- Delivered monthly Job Center Orientations. Explained WIOA scholarship eligibility requirements. Guided applicants in completing WIOA scholarship applications.
- Collected program data, reports and evaluations to track outcomes for grant reports.

Career Specialist

Folsom Cordova Community Partnership · Sept 2017 - Aug 2019

- Developed Individual Employment Plans with clients by including short and long term career goals, barriers to employment, plans to resolve barriers, transferable skills and job readiness training.
- Assessed client's employment goals in relation to transferable skills and local labor market conditions.
- Provided one one one assistance to clients with mock interviews, resume critique, and job search.
- Provided ongoing assistance to clients with barriers to employment, older workers, limited English speakers, single parents, Calworks recipients, justice involved , unemployed and underemployed individuals.
- Administered and reviewed the results of vocational related test designed to identify skills, aptitudes and interest of eligible participants.

ACCOMPLISHMENTS

- Folsom Cordova Community Partnership
  - Successfully launched new pilot program with the City of Rancho Cordova in October 2021 to serve Rancho Cordova residents.
  - 101 Rancho Cordova residents received individualize employment services during the first 9 months under the newly launched program.
  - 1266 community members accessed basic services in the Folsom Cordova Job Center Office for the Fiscal year 2021-2022 under the Workforce Innovation and Opportunity Act (WIOA) program.
  - 104 community members enrolled in Individualized Employment Services under the WIOA program.
  - Successfully developed, coordinated and launched JobEX Boot camp in August 2022. This Job Readiness boot camp prepares participants for successful employment.
  - Manage the Digital Equity program in partnership with United Way to distribute 140 Chromebooks and 250 tablets to Rancho Cordova residents.

Certifications & Training

- Initiating & Planning Projects Course *University of California Irvine* August 2022
- Suicide Prevention Training *Sacramento Native American Health Center* May 2022

Volunteering

- **Racial & Cultural Equity Committee** Folsom Cordova Community Partnership

NOUNE MANUKYAN

Sacramento, CA | nouneggb@yahoo.com | (818) 279-5597

Public servant and Specialist with over 7 years of progressive experience with a history of contributing to complex governmental and managerial problems; developing and evaluating alternatives; analyzing data and presenting ideas and information effectively both orally and in writing; consulting with and advising administrators or other interested parties on a wide variety of subject matter areas; gaining and maintaining the confidence and cooperation of those contacted during the course of work; coordinating the work of others, and acting as a team or conference leader. Excellent in teaching curriculum and providing a safe learning environment for children and young adults.

ADMINISTRATIVE SKILLS & AWARDS

- **Word, Excel, PowerPoint, Outlook, Zoom, Microsoft Teams**
- Calibre Press Female Enforcers Award
- Bilingual Competency: **Armenian, Russian**
- **Policy** Coordinator
- **Customer Service**
- **Data Analysis**
- **Community Service** Award
- **Team Leader / Trainer**
- Dean's List - CPR + First Aid

EDUCATION

- **Bachelor's of Science in Criminal Justice**
- **Associate's in Art in Social Studies**
- **Associate's in Science in Administration of Justice**

PROFESSIONAL EXPERIENCE

FOLSOM CORDOVA JOB CENTER | CAREER SPECIALIST
DECEMBER 2021 – present
Sacramento, CA

- Assist clients by providing and conducting initial assessments, case management, career coaching and counseling for any job preparation purposes.
- Assist clients by developing an Individual Employment Plan (IEP)
- Support clients with searching and gaining employment.
- Collaborate, coordinate and assist in referrals for services with the community partners and local employers. As well as, connecting clients to resources through the City of Rancho Cordova and other surrounding areas.
- Provide resources to job readiness workshops and workforce readiness activities provided by the job center.
- Complete Monthly Narrative Reports, collecting and analyzing data.
- Performs duties with strength-based customer centered design. As well as empowerment focused engagement approach and cultural responsiveness.

LOS ANGELES UNIFIED SCHOOL DISTRICT | TEACHER
APRIL 2019 – JULY 2021
Los Angeles, CA

- I supervise and educate students teaching them curriculum in English Language Arts, Mathematics, History, Social Studies, and Science. In addition, I evaluate their assignments for compliance, accuracy, and following directions. Also, I evaluate and assess materials, documents, and resources to find techniques to engage and motivate students to achieve results and develop their cognitive, reasoning, and deductive skills.
- I demonstrate knowledge and application of appropriate developmental practices for young children; keep accurate, neat records including class lists, attendance, health records, roll book, report cards, and permanent folders.

- I plan and prepare for classes by creating lesson plans weekly and supply substitutes with adequate plans and materials.
- I do market research on methods, programs, curriculum guides, procedure bulletins, and other resources available to students.
- I use a variety of methods for diagnosis and/or placement purposes.
- Encourage parents to be informed of the student's progress and needs.
- Demonstrate evidence of professional growth, participates in service training, and contributes to faculty meetings and faculty studies.
- Conform to laws concerning the education, health, safety, and welfare of assigned students.
- I promote inclusive and equitable educational techniques and positive experiences proven to promote the early learning and well-being of all children, such as early learning strategies, school transition strategies, and enrichment activities.
- I participate in activities to improve program quality and support programs to foster school readiness and improve child outcomes.
- Participate in special projects as assigned
- I research current educational issues relating to various early learning programs and stay current on trends in early learning
- Write, review, edit and/or otherwise prepare documents, including yearend reports, data collection forms, correspondence, legislation analysis, policies and regulations for senior management, federal and State control agencies, private contractors, legislators, and the early education community
- Participate, facilitate, or act as lead, on children and family services work groups and advisory committees with representatives from other state and local agencies, service providers, child advocacy groups, and the general public.

GLENDALE COMMUNITY COLLEGE POLICE DEPT | POLICE CADET CORPORAL **JUN 2015 - APRIL 2019**
Los Angeles, CA

- I worked with representatives, other governmental agencies, and internal and external stakeholders, including, but not limited to, program directors, curriculum specialists, teachers, parents, and representatives from various communities to develop and implement various community guidelines that promote the vision, mission, and goals of the police department and the campus.
- I took the initiative enforcing the law and making sound decisions. This included reasoning logically, being creative, researching and analyze data from multiple resources, developing and evaluate alternatives, working under tight time constraints, and handling changing priorities effectively in order to complete work assignments.
- I established and maintained cooperative working relationships with multidisciplinary staff management and others in the course of business, communicated effectively both verbally and in writing, and develop and maintain a comprehensive understanding of laws, regulations, policies and procedures, particularly in the area of the penal code.
- I developed pertinent information, alternatives and recommendations upon which management can base program policy changes and I drafted proposals for program policy changes. This included making written and verbal presentations to management, analyzing, and evaluating tools, and developing new procedures to increase management effectiveness.
- I represented the division, as needed or required, at management meetings, in consultations with other staff and teams, in the Division and with other agencies.
- Independently gathered, updated, and tracked status of events such as use of force incidents, riots, suspected felonious criminal activity, any incident resulting in serious bodily injury, great bodily injury, or a suspicious death, sexual assault allegations, allegations of misconduct, and incidents that may potentially be referred to the District Attorney's Office.

- I evaluated, reviewed, and maintained spreadsheets on all damaged and inoperable equipment relative to Body-Worn Cameras and Audio-Video Surveillance System, and tracked when they are repaired and returned to operation.
- Researched, analyzed, used judgment and discretion to interpret and apply various rules, regulations, and procedures pertaining to the law. Furthermore, I performed administrative duties including adherence to Departmental policies, rules, and procedures.
- Provided customer service at the front counter and over the telephone, accepting and processing lost property, dispatching and utilizing CAD (Computer - Aided Dispatch), traffic control and direction, patrol checks, enforcing parking violations, providing public safety, assisting with medical calls, assisting police officers working special events, and other duties as assigned.
- Supervised and trained newly hired staff of lower rank to meet the above expectations of the job description.
- Resolved parking complaints, enforced parking violations, operated a police vehicle, operated a two-way radio, assisted with traffic control and direction, enforced Glendale Municipal Code violations, assisted Police Officers when requested and completed as how duties as assigned.
- Responded to calls for service regarding accidents, emergencies, crimes, threats, altercations and/or requests for aid.
- Provided information and assistance to the public and promotes Community-Based Policing philosophies.
- Interviewed, interrogates and records statements from witnesses, suspects and victims.
- Identified relevant facts and prepares written reports on incidents and cases assigned.
- Promoted community-based policing programs that emphasize collaborative problem-solving efforts between law enforcement and the community.
- Apprehend suspects by driving safely at high speeds, chased suspects on foot, climbed over obstacles, physically subduing suspects, utilizing self-defense and arrest control techniques, and utilizing firearms under appropriate conditions used for training purposes.
- Communicated calmly with angry, upset, and frightened people.

REFERENCES

PROFESSIONAL

Kristine Pakhanyan
College and Career Technician at Glendale Unified School District
Phone: 818-836-0033
Email: Kpakhanyan@gmail.com

Hermineh Markosyan
Principle
Monlux Elementary School
Los Angeles Unified School District
Phone: 818-763-4693
Email: hermineh.markosyan@lausd.net

Larisa Hakobyan
Teacher's Assistant
Kittridge St. Elementary School
Los Angeles Unified School District
Phone: 818-601-2255
Email: Larisaah@yahoo.com

PERSONAL

Aharon Manukyan
Commercial Real Estate Agent
GQNorth Real Estate Sacramento
Phone: 916-801-3984
Email: manukyancre@gmail.com

Armine Asatryan
Teacher's Assistant
Kittridge St. Elementary School
Los Angeles Unified School District
Phone: 818-633-9079
Email: asatryanarminee@gmail.com

VIKTORIYA BARNYAK

916-995-3552 | dorofeyeva.grms@gmail.com | Rancho Cardova, 95670

ABOUT ME

Compassionate Administrative Assistant with 7+ years of experience working in a fast-paced environment applying expert level computer skills to streamline systems. Seeking to apply detail-oriented talents and adaptable personality to fulfill your company's needs as well as make a positive influence in the community.

EXPERIENCE

Career Specialist **2022- Present**

Folsom Cordova Community Partnership
Rancho Cordova, CA

- Provided case management for 20+ clients; career counseling guidance, planning and workforce preparation activities to assist clients in meeting employment goals or career pathways.
- Maintained up-to-date knowledge of the current labor market and labor market trends, growing industries, emerging occupations.
- Conducted job readiness workshops and outreach activities.
- Maintain accurate and timely case files with progress notes and records.

Department Specialist **2016 - 2021**

Safeway and Albertsons
Clackamas, OR

- Provided Administrative support to multiple managers.
- Worked closely with vendors (suppliers and distributors) to ensure that all data is complete and accurate.
- Gathered data from various sources; prepared, analyzed and reviewed reports/audits, Identified and resolved issues, attributed inconsistencies.
- Maintained complex records and files, searched, investigated, and resolved inconsistencies.
- Posted records and processes departmental documents.
- Responded to inquiries that required specialized knowledge of function to respond.
- Trained new employees on job tasks

Human Resources/ Visual Arts Gallery Administrative Assistant (work-study) **2014 - 2015**

Mt. Hood Community College
Gresham, OR

- Collected I-9 Forms, and new hire information
- Completed background checks
- Entered FERPA information
- Verified identification and distributed paychecks
- Answered, screened, and directed calls
- Provide office support in mailing, scanning, faxing, and copying

EDUCATION

Mt. Hood Community College
2013 - 2015
Associate Degree in **Business Administration**

Umpqua Community College
2019 - 2020
Retail Management Certificate

SKILLS

- Problem Solving
- Google Suite
- Microsoft Office
- Typing: 53 WPM
- Critical Thinking
- Communication Skills
- Bilingual in Russian/English
- Oraganized

Section 8:

Letters of Support

GENERAL ASSEMBLY

Amanda Norton
Economic Development Manager
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Dear Ms. Amanda Norton,

On behalf of General Assembly Space, Inc (GA), please accept this letter of support for Folsom Cordova Community Partnership's application for the City of Rancho Cordova's Workforce Recovery Program. The FCCP team possesses the local expertise, local community relationships, and case management capacity critical to maintaining a strong workforce development sector and enabling Rancho Cordova residents with barriers to employment to enter the workforce in skilled occupations.

General Assembly (GA) is a leader in digital skills transformation, powering large-scale upskilling and reskilling initiatives for adult learners. Since 2011, we have trained over 80,000 adults across 32 campuses in 5 countries. Our enterprise team has partnered with leading companies — including 42 of the Fortune 100 — to upskill and reskill workers with in-demand tech capabilities. GA's first cohort with the city of Rancho Cordova and partnership with the Greater Sacramento Economic Council's coalition to upskill workers in the wake of the Covid-19 pandemic illustrate our commitment to our local community and ability to achieve concrete employment outcomes.

In 2021, both GA and FCCP received funding from the city of Rancho Cordova's Economic Development Department. This year, we hope to advance our independent goals and foster a stronger local workforce system through collaboration. We envision a cross-referral collaborative between GA and FCCP, in which GA provides advanced training opportunities and FCCP provides case management and wraparound services where needed.

GA strongly supports FCCP's grant application. We believe that FCCP is well poised to offer the comprehensive engagement and case management necessary to operate an effective workforce development program. As a pillar of the local community, their participation will be key to building workforce pathways and technology career development opportunities throughout the city of Rancho Cordova. For additional information, feel free to contact me at: priya.ramanathan@generalassemb.ly or 516.810.8064.

Sincerely,

Priya Ramanathan
VP, Government & Workforce Partnerships
General Assembly

GA NEW YORK CITY
915 Broadway, 3rd Floor
NY, NY 10010
(917) 722-0237
generalassemb.ly

NORTH STATE BUILDING INDUSTRY ASSOCIATION FOUNDATION

October 21, 2022

Amanda Norton
Economic Development Manager
City of Rancho Cordova
Economic Development
2729 Prospect Park Drive Rancho Cordova, CA 95670

Re: North State Building Industry Foundation (NSBIF) young adult workforce proposal

On behalf of North State Building Industry Foundation (NSBIF), please accept this letter of support for Folsom Cordova Community Partnership's application for the City of Rancho Cordova's Workforce Recovery Program.

NSBIF strongly supports FCCP's grant application. The FCCP team possesses the local expertise, local community relationships, and case management capacity critical to maintaining a strong workforce development sector and enabling Rancho Cordova residents with barriers to employment to enter the workforce in skilled occupations.

The NSBIF works with a variety of community partners in the Greater Sacramento area serving the workforce development needs of the region through training youth and young adults about careers in the building industry.

We envision a cross-referral collaborative between NSBIF and FCCP, in which NSBIF provides skilled training opportunities and FCCP provides case management and wraparound services where needed for Rancho Cordova residents.

We believe FCCP can offer the comprehensive engagement and case management necessary to operate an effective workforce development program. As a well-established member of the Rancho Cordova community, their participation will be key to building workforce pathways throughout the city of Rancho Cordova. Please feel free to contact me for more additional information at jennifer@northstatebia.org or 916-899-4101.

Sincerely,

Jennifer Poff

Jennifer Poff, CAE
Executive Director
North State Building Industry Foundation

1536 Eureka Road
Roseville CA, 95661
916 677 5717

GENERAL ASSEMBLY

City of Rancho Cordova
Economic Development
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Thank you for the opportunity to respond to the City of Rancho Cordova's Workforce Recovery Program request for proposals. General Assembly (GA) is the global leader in digital skills transformation, powering large-scale upskilling and reskilling initiatives for adult learners. Since 2011, GA has trained over 80,000 adults on the most in-demand skills, including software engineering, UX design, and data science. After our successful pilot partnership with the City of Rancho Cordova in early 2022, we seek to renew our engagement to increase access to career pathways and help even more local workers enter the tech workforce.

Through public-private partnerships, we are pioneering a community reskilling approach to career training. This place-based model unites stakeholders to transform local employment and hiring ecosystems. Our team aims to expand access to our life changing career bootcamps, while collaborating with employers to build diverse local staffing pools. Through wraparound support, direct employer exposure, and proactive career guidance, we match graduates with in-demand, career catalyzing roles. As a mission-driven organization, GA has been recognized by *Fast Company* in both 2015 and 2019 as a World-Changing Idea, as well as one of the Top 10 Most Innovative Companies in Education.

Since 2020, our Community Reskilling programs in Sacramento, Atlanta, Louisville, Buffalo, and NYC have reached over 6,000 learners. In 2022, GA received funding from the City of Rancho Cordova to operate one pilot SEI course. We enrolled 18 learners in our Software Engineering Immersive, GA's flagship career accelerator program. 9 individuals graduated from the program this past June and three have already found full-time employment in their chosen field. The 4 learners who have opted to continue with GA's Career Services have all participated in multiple interviews and are well on their way to securing a permanent position. In this first iteration of our Rancho Cordova partnership, GA collaborated with the City to host networking events and career fairs, introducing graduates to local employers. Throughout our engagement, we remained committed to our partnership, joining City Council meetings and to lend our voice to advocating for workforce development resources across the city. We look forward to building on this model and reaching even more Rancho Cordova residents if awarded a renewal contract.

Described in further detail below, we propose running one cohort of our flagship career change program, our 12 week Software Engineering Immersive. This program would require $320,000 per cohort, which includes recruitment, admissions, program delivery staff, student success, a designated career coach for each student until they have secured job placement and a stipend.

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GA was founded in 2011 and currently has 696 instructors and 571 non-instructional staff, totalling 1,267 employees globally. This program will be managed by GA's Government & Workforce Partnerships team: Priya Ramanathan (Vice President), Cari Perez (Account Director), and Sarah Hinstorff (Program Manager). In addition to this core team, GA will staff admissions experts, instructors, career coaches, student success support through our regular staffing model. We have included staff bios in the Supportive Information section.

General Assembly, Inc is a subsidiary of The Adecco Group. The Adecco Group's full annual report for 2021 can be found here and The Adecco Group's full annual report for 2020 can be found here. Our Business License Number for the City of Rancho Cordova is OOA-001538.

References include:

1. Greater Sacramento Economic Council (economic development agency)
    a. **Contact**: Scott Powell, Executive Vice President, GSEC
    b. **Address**: 400 Capitol Mall, Suite 2520, Sacramento, California 95814
    c. **Email**: spowell@greatersacramento.com
    d. **Term**: June 2020 - December 2020
    e. **Contract Value:** $720,000 - *Analytics Immersive and Wraparound Services*
2. TechBuffalo (nonprofit partner)
    a. **Contact**: Sarah Tanbakuchi, President and CEO, TechBuffalo
    b. **Address**: 247 Cayuga Rd Suite 50, Buffalo, NY 14225
    c. **Email**: stanbakuchi@techbuffalo.org
    d. **Term**: September 2021 - June 2022
    e. **Contract Value:** $375,000 - *Data Analytics Immersive*
3. St. Nicks Alliance (nonprofit partner)
    a. **Contact**: Larry Rothchild, Director, Workforce Development, St Nicks Alliance
    b. **Address**: 790 Broadway 2nd Floor, Brooklyn, NY 11206
    c. **Email**: lrothchild@stnicksalliance.org **- Phone:** 718-302-2057 ext 416
    d. **Term**: September 2022 - September 2023
    e. **Contract Value:** $90,000 - *8-Week Modified Data Training Program*

Thank you for your consideration.

Sincerely,

Lisa Lewin
Chief Executive Officer, General Assembly
915 Broadway, 3rd Floor
New York, NY 10010

GENERAL ASSEMBLY

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Qualifications and Experience

About General Assembly

General Assembly (GA) is the global leader in digital skills transformation, helping power large-scale upskilling and reskilling initiatives for tens of thousands of adults around the world and working with leading enterprises on large-scale digital initiatives. Since our founding in 2014, GA has trained over 80,000 adults in data analytics, data science, digital marketing, software engineering, and user experience design, among other skills. Our enterprise team has partnered with leading companies — including 42 of the Fortune 100 — on large-scale programs to upskill and reskill thousands of workers with in-demand tech capabilities.

Further, GA partners with workforce development agencies at the federal, state, and local level, as well as national and local community-based organizations. We are excited about the opportunity to partner with the city of Rancho Cordova again to provide our industry leading training to power its workforce and support broader talent investments in the regional economy.

What We Do

Since 2011, GA has transformed tens of thousands of careers through pioneering experiential education in today's most in-demand skills. Whether learners want to build certain skills or completely pivot into careers in data, tech, or design, students receive access to award-winning curricula and expert instructors, career coaching, hiring partners, and global alumni community. We offer courses in workshop, part-time, or full-time formats.

GA's experience providing live-instruction online training enabled us to quickly pivot to offer programming remotely amid the pandemic. We continue to offer the bulk of our courses in this remote format without sacrificing quality or student experience — our net promoter scores (NPS) have stayed consistent, as have our number of withdrawals and drops. Indicating our continued capacity for scale, in 2020, we enrolled over 5,100 learners in our immersive courses globally..

Our Learners

The typical GA student demonstrates a drive to making a significant career change but lacks formal prior coding or software engineering experience. Students must be over the age of 18 and have a high school diploma or GED. Roughly 75% have a bachelor's degree or higher, although often in an entirely different field of study. They must complete a preliminary assessment designed to measure passion, grit, persistence, and ability to learn. Our learners come from a range of educational and professional backgrounds and represent an incredibly diverse array of careers including former musicians, Wall Street bankers, Uber drivers, athletes, and more. Most students are between the ages of 25 and 35, looking to advance down a long-term career path that leads to meaningful earnings potential for themselves and their families.

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Outcomes
A core component to comprehensive training, GA promotes student employability and professional skills through project-based collaborative work and the career coaching program. Each class is assigned a dedicated Career Coach who teaches a lesson each week related to career readiness. These coaches are students' accountability partners, helping learners set goals, build a personal brand, apply for jobs, prepare for interviews, and tackle technical assessments with confidence. Their expertise lends students a holistic understanding of prospective industries, roles, and potential career trajectories.

As students move towards graduation, we focus on building community through strategic networking. Our team hosts a range of weekly events, such as Q&A sessions with industry experts. Typically, we work with employers to understand what roles they have open and then find great matches from our graduate pool. From there, we share the candidates' materials (e.g. CV, portfolio, etc.) with the employer and they directly contact preferred candidates directly.

Once students begin the job search, our Career Services team expects them to meet minimum standards for support: apply to ten jobs per week, attend one networking event per month, maintain a job search tracker, and speak with their career coach at least bi-weekly. Coaches work with students until they secure their first role. Over the past seven years, GA has directly helped more than 12,000 career-changers land jobs in software engineering, data, and user experience (UX) design our outcomes programming. In 2020, 74.4% of graduates who participated in our full-time career services program accepted a job offer in their field of study within 180 days of graduating with ultimately, 93.2% of these graduates finding employment at the one year mark.

Not only do GA's immersive programs translate into employment, they also lead to higher job satisfaction and increased wages for students. One year post-course, 84% of immersive graduates were happier in their careers, and 74% were making more money. Further, based on a Gallup survey of 5,000 GA graduates, immersive graduates made back the full cost of tuition within one year and doubled their income, on average, in five years.

Our graduates secure jobs at top companies across sectors including Adobe, Amazon, Apple, Bank of America, Capital One, Cisco, CVS Health, Deloitte, Dish Network, Disney, Express Scripts, Google, HP, Microsoft, Prudential Financial, Salesforce, Verizon and Visa.

Social Impact and Community Reskilling
Regardless of previous barriers to education and employment, GA believes everyone should be able to pursue a meaningful career they love. GA's Social Impact and Community Reskilling programs strive to empower communities underrepresented in tech and unemployed/underemployed adults. Through our partnerships and programming, we aim to:

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- Ensure anyone with the passion and readiness to succeed can access GA programs - even if they can't pay out of pocket - through investments from employers, loans and income share agreements.
- Increase representation of women, people of color, veterans, and LGBTQ+ individuals in tech roles through events, workshops, diversity initiatives, and investments in talent.
- Build and foster a tech talent pipeline that reflects our diverse communities in partnerships with companies, government agencies, and nonprofit organizations.

Our recent community reskilling projects have targeted students who are unemployed or underemployed due to COVID-19 and who are facing economic hardships. Our full student demographics are outlined in the Outcomes Report included in our Supportive Information section. With these specific initiatives we aim to include 50%+ people of color, 50%+ women, 100% unemployed or underemployed.

Case Studies
A few highlights from recent programs include:

- **Buffalo, NY: M&T Bank** launched the M&T Tech Academy in late 2020 to invest in the local economy and build a pipeline of skilled tech professionals. To reach communities underrepresented in STEM, the bank spearheaded the Western NY Tech Skills Initiative, a coalition including TechBuffalo, Empire State Development, and GA. In this initiative GA enrolled 800 learners in short-form, self-paced classes and 104 in more intensive part-time live instructor-led courses. Beyond these offerings, M&T Bank, TechBuffalo, and four regional employers co-sponsored a full-time, 12-week GA Data Analytics course designed to connect learners directly to employment upon graduation. Employers provided the initial investment and worked with GA's product team to design this new Data Analytics Immersive program. Our first cohort graduated in April of 2022 and demonstrated fantastic outcomes: 100% of the 19 learners enrolled successfully graduated. In just three weeks post-course, 50% of graduates obtained full-time jobs. By the six month mark, 83% of graduates secured roles in their field with one alum pursuing higher education. Based on the first cohort's success, we are now planning a second cohort launch in early 2023. ($375,000, Sarah Tanbakuchi, stanbakuchi@techbuffalo.org)

- **Houston: The Ion and BakerRipley** are two Houston partners dedicated to expanding tech career opportunities to underrepresented communities. GA operates two local programs to achieve collective impact in Houston. First, in 2021, AT&T funded GA and the nonprofit BakerRipley to offer a start to finish digital skills training program. Within this structure, 15 students began with BakerRipley's Tech Bridge Program to obtain basic tech skills and exposure. After completing the initial course, seven learners advanced onto GA's Software Engineering Immersive (SEI) to develop the skills to become full software engineers. GA also partners with the Ion, a new tech hub dedicated to encouraging

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entrepreneurship in Houston. In 2022, Microsoft funded the Ion to enroll 10 diverse Houstonians in our flex and full-time SEI courses with the potential for continued partnership. We hope to build on these partnerships through cross-sector collaboration, contributing to the city's economic growth and transforming career opportunities for Houstonians often underrepresented in the technology workforce. ($112,500, Chelsea Wessel, cself@ionhouston.com - $104,650, Ernest Lewis III, elewis1@bakerripley.org)

- **Louisville, KY: Future of Work Initiative** is a public-private community partnership designed to revitalize the region's economy. The coalition, chaired by the city of Louisville and Humana, includes Microsoft, the University of Louisville, the Louisville Healthcare CEO Council, GA, and Louisville Forward, the city's economic development agency. Launched prior to the onset of Covid-19, Future of Work pivoted to invest primarily in communities hit hardest by the pandemic and its economic repercussions. Since April 2020, 3,300+ Louisville residents have participated in short-form, self-paced GA workshops. We also enrolled 100 learners into part-time immersive GA courses in Digital Marketing, User Experience Design, Data Analytics, and Software Engineering, achieving a 70% graduation rate. Through funding from Humana, GA trained 33 general Louisville residents and 22 high school and college students in a full-time Data Analytics program with a local community based organization, AMPED (97% graduation rate) and Microsoft's Butterfly Project (100% graduation rate). ($220,000, Deb Clary, dclary@humana.com)

- **New York City NY: St Nicks Alliance**, a Brooklyn-based nonprofit, began collaborating with GA in the fall of 2022 to offer customized data analytics programming to upskill low- and moderate-income community members. Our innovative partnership leverages GA's core data analytics curricula to build a specialized 8-week career accelerator experience. GA provides in-person training at our NYC campus, covering Excel, SQL, and Tableau fundamentals. Following GA instruction, St. Nicks offers tutoring, career coaching, and funding to earn industry-recognized certifications. Upon graduation, St. Nicks will match students with paid internships and continue to support their long-term goals to access careers in tech. Leveraging a mix of public and private funding, this model allows both organizations to leverage their strengths to reskill our local community. GA activates its proven instructors and curricula, while St. Nicks builds upon their relationships with job seekers. We are progressing smoothly through our pilot of 12 learners, and are eager to share reflections later this year. ($90,000, Larry Rothchild, lrothchild@stnicksalliance.org)

- **Sacramento, CA: Greater Sacramento Economic Council (GSEC)** unites business and community leaders to create a regional economic development strategy with a focus on growth, sustainability, equity and competitiveness. GSEC spearheads a coalition to reskill Black and Latinx Sacramentans impacted by Covid-19 job losses. Funded by CARES Act federal recovery support, GSEC activated a partnership with the Greater Sacramento Urban League (GSUL) to direct displaced workers to tech-focused reskilling programs

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with Merit America and GA. In 16-weeks, 39 students received sponsored admission into life changing career accelerator courses: 50% into Merit America's part-time IT Support Certificate training and 50% into GA's more advanced full-time Data Analytics Immersive. In total, 36 students graduated (90% completion rate) and 81% were hired for full-time roles at companies such as Accenture, AT&T, and California Volunteers. This project successfully and rapidly unified local workforce stakeholders to transform underemployed workers' immediate economic opportunities and long-term career trajectories. References for our work in Sacramento and other projects are included in our Supportive Information section. ($720,000, Scott Powell, spowell@greatersacramento.com)

GA's social impact and community partnerships have received awards from Best for NYC, City & State Magazine, Fast Company, the MIT Inclusive Innovation Challenge, and the Workforce Magazine Optimas Award for Corporate Citizenship. GA has received government grants through the Greater Sacramento Economic Council, the Connecticut Department of Economic and Community Development, the Greater London Authority, the New York City Tech Talent Pipeline, RealJobs Rhode Island, and the United States Department of Labor, and private support from Microsoft, Humana, M&T Bank, Adobe, AT&T Aspire, BNY Mellon, and Capital One Future Edge.

Our Team

The core team for this project will be as follows (bios included as Supportive Information):

Natalia Garcia SVP, Corporate & External Affairs	**Project Role:** Executive Sponsor **Email:** natalia.garcia@generalassemb.ly **Location:** Based out of Sacramento, CA
Priya Ramanathan VP, Government & Workforce Partnerships	**Project Role:** Program Oversight **Email:** priya.ramanathan@generalassemb.ly **Phone:** 516.810.8064 **Location:** Based out of New York City, NY
Cari Perez Account Director, Government & Workforce Partnerships	**Project Role:** Program Design and Planning **Email:** cari.perez@generalassemb.ly **Location:** Based out of Miami, FL
Sarah Hinstorff Program Manager, Government & Workforce Partnerships	**Project Role:** Program Operations, Primary Liaison **Email:** sarah.hinstorff@generalassemb.ly **Location:** Based out of New York City, NY

GA's dedicated team of admissions experts, instructors, instructional associates, career coaches, and student success will collaborate on program execution. We have included sample staff bios in the Supportive Information section for the following roles that work closest with students: Admissions Producer, Software Engineering Immersive Instructor, and Career Coach.

GENERAL ASSEMBLY

Project Description

Project Name

General Assembly & the City of Rancho Cordova: Training to Expand Access to Careers in Tech

Project Design

Engagement and Outreach

To reach learners for this program, GA will work closely with the City of Rancho Cordova to leverage community partnerships and local channel marketing, connecting individuals aligned with local nonprofits and networks to these career training opportunities. We will specifically market the opportunity as an advanced learning option for individuals who have participated in digital literacy, introductory IT, or other such preparatory programming. We hope to collaborate with the City of Rancho Cordova to amplify our outreach and spread the word in public spaces. GA anticipates offering free info sessions and introductory classes to introduce the local community to GA and careers pathways in software engineering to engage prospective students. We aim to create an open environment in which participants can explore our programs and determine if the curriculum aligns with their baseline digital skills and long-term career goals.

Population and Demographics

For this project, GA will target outreach toward unemployed, underemployed, and displaced workers impacted by the Covid-19 pandemic. In 2021, across our national immersive courses, 40.5% of learners self identified as women, 58.3% as male, and 1.2% as other. 41.8% of learners self identified as white, 16.6% as Black, 24.2% as Asian/Pacific Islander, 0.4% as Native American, 11.7% Latinx, and 5.3% as other. These demographics mirror Rancho Cordova's local census data.

Notably, in the US Census period of 2016-2020, only 27.4% of Rancho Cordova census respondents reported having a bachelor's degree or higher, compared to 33% nationally[1]. However, 88.6% of residents reported having a high school diploma/GED or higher, indicating a population aligned with GA's typical learner profile. The median individual income for the city was reported at $33,236. By accessing a career in software engineering, workers have the opportunity to double their existing income with their first new position.

Admissions Process

After a candidate indicates interest in a GA program, our admissions team will reach out to support them through the decision making and application process. Our admissions process for the Rancho Cordova cohorts will follow the following structure, consistent across GA programs:

1. **Landing Page**: Candidate applies via GA's Rancho Cordova-specific landing page. We anticipate that most candidates will navigate to this site through our community events, general public outreach, or direct partner referral.

[1] https://www.census.gov/quickfacts/ranchocordovacitycalifornia

GENERAL ASSEMBLY

2. **Phone Interview**: Interested candidates will receive follow up communication from a GA admissions team member, requesting a phone screen. The phone screen will evaluate the applicants' understanding of the course requirements, alignment with career aspirations, and ability to commit to the intensive schedule.
3. **Initial Assessment**: Following a successful phone screen, candidates will receive an assessment to gauge their baseline digital literacy and commitment to learning.
4. **Final Behavioral Interview**: Candidates that pass the Assessment participate in one final behavioral interview and then receive enrollment into the cohort. Selected learners will continue to work with the admissions team to satisfy all logistics prior to the course start.
5. **Pre-work**: Prior to course start, candidates receive a conditional acceptance. Each course's pre-work modules cover the discipline's building blocks and create a uniform starting point from which all students will begin the class. Final acceptance is contingent upon successful pre-work completion.

Delivery Model

The Software Engineering Immersive (SEI) is GA's flagship program. The immersive, 12-week course includes 80 hours of cohort-based classroom time over twelve weeks, with 140 hours of guided learning, 340 hours of project or team-based work, and 200 hours of self-access learning. GA has run SEI live online for four years, and our remote courses mirror the campus experience with the same curriculum, instruction, student support, and career outcomes. We use best-in-class technology to create a seamless learning environment with Zoom and Slack forming the basis of our interactive virtual classroom. Beyond the SEI curriculum, Rancho Cordova learners will have access to GA's full suite of Career Services, including in-class career readiness workshops, one-on-one coaching sessions, and introductions to employer partners. If needed, we can activate our Student Success team to assist struggling students in troubleshooting during the course and processing referrals to appropriate supportive services.

Skills Development and Training Process

GA will assign an experienced lead instructor as well as an Instructional Associate (IA) to support the student experience. Ideally, the GA will hire an alumni from the last Rancho Cordova cohort to serve as the IA. By hiring a successful prior participant, GA encourages a community of long-term learning and mentorship. The lead instructor and IA will together lead training in real time with self-paced, asynchronous learning via our learning platform - myGA. This combined delivery model enables learners to access up-to-date learning materials before a course starts and after class hours. Course assignments are tangible and measurable, enabling instructors to track student progress and provide feedback throughout the learning experience. Both the instructor and IA will lead office hours to answer questions and support learners in smaller group.

GA designs all of our content to be universally accessible and relevant by illustrating key concepts with real-world examples that represent a diverse set of backgrounds and perspectives.

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The SEI program prepares students for junior level software engineering roles upon graduation, and includes four primary units of study:

1. **Fundamentals:** Responsive layout and logic using JavaScript/jQuery
2. **Full-stack development:** MVC Server Apps, REST software architectural style, relational databases, security, testing and RESTful routing on the client-side
3. **Front-end frameworks:** JS MV* Frameworks, Advanced JavaScript concepts, Independent Learning
4. **APIs and Full-Stack Development:** API, Non-relational Databases, AJAX, Team Collaboration

Upon completion, participants are able to design and lay out responsive web applications, build secure full-stack web applications, safely model and store SQL and NoSQL databases, develop web applications using JavaScript, consume and integrate third-party APIs in application, use modern JavaScript browser application frameworks, and deploy applications to the web using cloud-based hosting. The full SEI syllabus is included in the Supportive Information section.

Student Planning and Retention Strategies

From start to finish, every Immersive student has a team of GA staff supporting, troubleshooting, and advocating for their continued successes.

- The **admissions** team ensures students are ready to participate in the rigorous program and have clear expectations about the course experience.
- The **student success** team facilitates orientation, communicates logistics, and provides students with touchpoints for accessibility, education plans, and improvement plans.
- **Instructors** lead live lectures, workshops, discussions, and critiques during class, office hours, 1:1's, and student resource groups, meeting students' diverse learning needs.
- **Career coaches** prepare students for their job search during the course and until graduates successfully secure a full-time role.

In this program, we seek to offer learners a $3,000 living stipend to help cover personal expenses, such as technology, internet, transportation, or any other pressing costs that could prohibit program completion. This stipend enables learners to create an environment in which they can focus on their studies and worry less about managing daily living expenses. In the pilot Rancho Cordova cohort, students reflected that the stipends were critical to their ability to purchase laptops, upgrade to faster internet, and support themselves through the course.

Placements and Employer Engagement

We rely on employer feedback to inform our iterative curriculum design. Our product and learning team works directly with our GA standards board made up of experts in the fields of engineering, data, and design to review our curricula up to four times a year to ensure that our training continues to meet industry standards.

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Further, GA strives to build local employer relationships around each of our major engagements. To satisfy the grant priorities, we will strive to support as many learners as possible to secure placements in the Rancho Cordova area. We will bring together key employer partners for hiring fairs, networking, and mentorship events. With the rise of remote work opportunities, we will also leverage our collaborations with large national employers.

In 2018, GA also strengthened its position as global leader in the talent industry as a result of its acquisition by the Adecco Group. The Adecco Group operates in 60 countries that offers 360° HR solutions from flexible to permanent employment, career transitions, and talent development services through its network of brands, presenting additional hiring opportunities for graduates.

In our previous engagement, graduates also enjoyed the Networking Event sponsored by the City of Rancho Cordova. We would be eager to leverage this programming for future cohorts.

For this purposes of this grant, each party will:	
General Assembly	1. Execute up to one Software Engineering Immersive (SEI) course, launching in Spring of 2023. GA can execute 1 cohort per quarter, for approximately 20 students per cohort. a. 480 hours of instruction in software engineering and computer science fundamentals. b. Individualized support from instructors and student experience team. c. Outcomes/career search curriculum and 1:1 career coaching. d. Access to GA's local and national hiring network, engaged by our talent placements team. 2. Execute free info sessions and introductory classes to engage prospective students and introduce the community to GA and the topic of software engineering. 3. Partner with Modis Recruiting Northern CA-based offices to drive student outcomes as well as other local employer intermediary partners.
The City of Rancho Cordova	1. If in-person programming is preferred, help identify and fund a space. 2. Provide introductions to non-profit, education, workforce development organizations, and other community partners to create a robust prospective candidate pipeline. 3. Support in co-hosting information sessions and other free community events. 4. Connect GA to employers interested in hiring junior software engineering talent.

Past Performance and Planned Outcomes

Past Performance

In 2022, GA received funding from the city of Rancho Cordova to operate one pilot SEI course. In this cohort, 18 learners began the SEI course. Of the nine graduates, three have obtained full-time work as a Junior Full Stack Developer, Junior Front End Developer, and Azure Cloud Engineer. One of these students even received her job offer before course graduation. Two learners opted

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out of the career services program and four continue to work with our career coach to secure a new role. Two alumni also stayed on with GA as paid IAs as they conducted their job search, refining their skills and sharing their knowledge with current learners. All four current job seekers have each had multiple interviews, including many that came from warm leads through our employer partnerships channel, with companies including the U.S. Senate, Metsi, and Lynton.

At the end of the course, students produced major capstone projects that demonstrate their skills, interests, and hireability. Capstones included an application to share portions of code, a tool to help gardeners map and plan their plots, a dashboard for athletic coaches to publish practice schedules, and other projects based on each learner's unique passions.

Our first cohort of learners represented a diverse array of Rancho Cordova residents, striving to embark on major career changes and build their economic mobility. See two short learner bios:

- **Courtney T.** - Courtney is a military veteran with a background as a technical trainer. She wanted to use her technical skills as a software engineer in a company that aligned with her values. She worked hard in the bootcamp as well as on her job search. She started applying for jobs a few weeks into the program and quickly lined up a series of interviews. Courtney quickly secured a job offer as a Full Stack Developer at Synergex International Corporation six days before she graduated the bootcamp. She is thrilled with her job, where she has found great mentorship and support. She has already come back to GA and spoken on alumni panels and passed on her advice to current students.

"Getting an opportunity to go to General Assembly has been a complete blessing to my growing family. Rancho Cordova allowed me to make the transition from a full-time job to the bootcamp without the risk of going into debt, and for that I will be forever grateful. With the resources offered by GA, I was able to land a job before I even graduated the bootcamp. My new job as a software engineer has been so enjoyable. I am making more money, but more importantly I am a happier person and have job satisfaction which I was missing at my previous job. None of this would be possible without the skills I learned at General Assembly." - Courtney

- **John M**.- Prior to the bootcamp, John worked in customer service and sales, as well as driving for Uber during the pandemic. He was a strong coder during the program and GA asked him to stay on as an IA. John worked hard to find a job post-course, continuing to code regularly and apply to jobs. He landed a role with OnDeck Pro as a Jr. Front End Developer. After receiving his offer, he posted advice in GA's "hired-in-tech" slack channel to all current GA job seekers to "Stay positive when facing rejection. Be grateful that you have the opportunity to land a job that lets you work remotely and build cool things. It took a lot of work throughout history to even make our current situations possible."

This cohort demonstrated a higher withdrawal rate (39%) than our anticipated average. We saw that the primary reasons learners reported not moving forward included health issues, course

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pace, and academic barriers. One student who withdrew due to health challenges hopes to re-enroll with our subsequent cohort.

GA conducts weekly surveys to understand learners' comfort with course material and collect feedback on instruction and coaching quality. This allows the GA team to continuously iterate and adjust the classroom and learning environment to allow students to thrive. Students also completed an End of Course survey where they provide numeric ratings of their overall course experience and provide additional comments to support their ratings.

In our pilot Rancho Cordova cohort, six graduates indicated in the survey that they would be interested in coming back to speak to a future class as an alum and/or being an IA for a course or immersive. We hope to leverage program alumni for future recruitment efforts, if funded.

Planned Outcomes

This year we hope to receive funding to operate at least one cohort of SEI with 20 learners. Based on our previous experience and program outcomes in offering full-time immersive training, we commit to the following outcomes, which will be clearly tracked over the grant period.

- Enroll 20 learners/cohort.
- Achieve an 85% graduation rate.
- Ensure 80% one-year per cohort placement rate in technology related roles for those graduates that participate in outcomes programming.

Nationally, GA graduates earn average starting salaries of $70,000. In Rancho Cordova, entry level data analysts earn starting salaries of $60,000/year and junior software engineers earn starting salaries of $50,000/year. These would be goal salary ranges for our graduates.

Through this engagement, GA hopes to further conversations about skills-based hiring strategies, encouraging employers to consider applicants' full range of experiences rather than attainment of a four year degree. We design our curricula around practical coursework that demonstrates applicants' aptitude and ability to jump right into job requirements.

Local Partnerships

Over the past two years, GA has been at the frontlines of establishing cross-sector collaborations to build equity across workforce systems. Covid-19 prompted what our partners at the Adecco Group term a "great re-evaluation," a time in which private and public actors alike must rethink their roles in bridging the gap between learning and working, education and economic mobility.

Preparing to launch our second cohort in Rancho Cordova, GA strives to integrate our work into the existing social and economic support infrastructure. We are excited to engage a coalition of local organizations with deep ties to the community. United Way California Capital Region, Valley Vision, and the Folsom Cordova Community Partnership have all expressed their support in building a cross-referral network, with a focus on referring their job seekers and introductory

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training graduates to GA's advanced tech skills opportunity. GA will in turn rely on these providers to offer wraparound services and additional case management services to learners who require additional support. We envision that each of these organizations will partner to host info sessions, networking events, and marketing campaigns, collaborating to reach the greatest number of Rancho Cordova residents. See letters of support attached in our Supportive Information section.

With an eye to connecting training graduates to direct employment opportunities, GA has held initial conversations with the Sacramento Hispanic Chamber of Commerce and the Asian Pacific Chamber of Commerce. Throughout this grant period, GA will connect to the initiatives led by the Chambers, engaging with private companies that need new talent sources to remain competitive. Our outcomes partnerships team is also committed to engaging with employers in other surrounding metros to create a robust pipeline of hiring partners.

Project Expected Timeline

GA proposes a two-phased approach to our partnership with the city of Rancho Cordova, with the goal of ensuring that we reach the largest number of potential prospective students, and then launching up at least one cohort of approximately 20 students over the course of a calendar year.

1. **Discovery & Exploration (Fall & Winter 2022):** GA will work with the City and regional nonprofits to advertise GA's introductory coding workshops. In similar engagements, we have found that we can most effectively reach potential students through partner marketing strategies. Through the workshop, students will explore web building blocks of the web — HTML and CSS — and learn how these programming languages can be applied to develop their own simple sites. Through this live, interactive, and beginner-friendly experience, interested students can explore coding and determine if it is something they hope to pursue further. We offer these workshops at least once per week at different times to accommodate various working and caregiving schedules.

2. **Transformation (Winter 2023):** GA will work with candidates to go through our standard admissions process on a rolling basis. Accepted students will enroll in our 12-week Software Engineering Immersive (SEI) and receive GA's career placement services upon graduation. See an outline of the full SEI curriculum in our Supportive Information section.

GA does not currently have a campus in Rancho Cordova or the surrounding areas but we have a strong history of success with our remote online Software Engineering Immersive. GA will work with the City to determine whether to run our remote program or find a local space in which to run the program in person, determining if additional funding is required for that purpose. Upon confirmation of continued funding, GA can quickly launch our second cohort in Rancho Cordova.

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Milestone	Date	Prerequisite Milestone/Contingency
Discovery & Exploration	Winter 2023	Local Channel Marketing & Partnerships Established
Cohort 1 launch	March 2023	20 students accepted and enrolled in SEI cohort
Cohort 2 launch (if funded)	June 2023	20 students accepted and enrolled in SEI cohort
Cohort 3 launch (if funded)	October 2023	20 students accepted and enrolled in SEI cohort

Sources and Uses of Funds

Sample pricing based on prior public engagements outlined below. GA's per cohort training costs have increased slightly from previous years due to higher costs of program delivery as a result of current economic conditions. Depending on the goals and audience for the program, and the desired number of individuals trained, we can work with the City to align on the appropriate pricing. GA would also welcome the opportunity to offer up to two additional cohorts of our Immersive training through the grant term should additional funds become available.

PRODUCT	PRODUCT DETAIL	# OF STUDENTS	PRICE PER STUDENT	PRICE PER COHORT
Software Engineering Training	• **Hours:** 12-week/480 hours training • **Staff:** Instructor management, Instructor and teaching assistants, dedicated career coach, student experience manager, customer success manager and admissions counselor • **Services**: Local marketing and sourcing, student pre-work, technical assessments, job placement events, data and outcomes tracking, reporting, and office hours	20	$13,000	$260,000
Living Stipends		20	$3,000	$60,000
			Total Cohort Cost	**$320,000**

*Discounted from $16,450 off-the-shelf price

Conflict of Interest Statement

To the best of our knowledge, General Assembly does not have any activities or relationships that might create a conflict of interest for GA or the City.

Exceptions

General Assembly does not have any exceptions to the NOFA requirements in their entirety.

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Supportive Information

Staff Bios - General Assembly + Rancho Cordova

Natalia Garcia
Senior Vice President, Corporate & External Affairs
Executive Sponsor - Based in Sacramento, CA
natalia.garcia@generalassemb.ly

Based in East Sacramento, Natalia is General Assembly's Senior Vice President of Corporate and External Affairs. A self-described storyteller, project manager, bilingual speaker (Spanish), problem solver, lifelong learner, and social impact devotee, Natalia spent seven years at Whiteboard Advisors, leading higher education and workforce policy matters, research, and thought leadership. During her tenure, Natalia became a member of Mayor Steinberg's Workforce and Economic Innovation Subcommittee and introduced General Assembly to the Greater Sacramento Economic Council, which led to a successful Community Reskilling partnership. She is devoted to continuing to develop the Sacramento, statewide, and broader workforce ecosystems to expand career options for all job seekers.

Priya Ramanathan
Vice President, Government & Workforce Partnerships
Program Oversight - Based in New York City
priya.ramanathan@generalassemb.ly

Priya is the VP of Government and Workforce Partnerships at General Assembly, focused on developing innovative public-private partnerships that build accessible pathways to GA's industry leading digital skills training. Priya began her public sector and workforce development career in New York, working in strategy roles for government and non-profit organizations, including at the NYC Department of Small Business Services and the Brooklyn Navy Yard Development Corporation. Prior to GA, Priya was the VP of Growth and Strategy at Per Scholas, growing national campus operations from eight to 17 campuses and project managing investment initiatives that will allow Per Scholas to grow to 25 campuses and 10,000 learners trained nationally by 2025. Priya began at Per Scholas in 2015 managing its program operations in both the Bronx and Brooklyn. In her work, Priya is committed to lifting up nontraditional educational pathways that are focused on skills of the future and remove barriers to economic prosperity for diverse talent that still remain grossly underrepresented across growing industries, like tech.

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Cari Perez
Account Director, Government & Workforce Partnerships
Program Design and Planning - Based in Miami, FL
cari.perez@generalassemb.ly

As a proud Latina and immigrant, Cari is GA's Account Director for Government and Workforce Partnerships, focused on building no-cost training programs for underserved and overlooked community members. She has worked for the Presidency of Ecuador building a tech ecosystem for the county, later being recruited by the Dean of Engineering of CalTech to help launch Ecuador's first science and engineering University as the Director of Marketing and Partnerships. In 2019, she was hired at GA to launch a new campus in Miami, and later draft a go-to market strategy for GA programs in additional emerging tech cities in the USA. Her experience lies in merging strategy, marketing, education, DEI and technology.

From designing a science camp for 200+ indegenous children in Ecuador, to producing GA's first workshops in Spanish for Latinx citizens, Cari remains fully committed to co-creating pathways economic mobility for non-traditional talent.

Sarah Hinstorff
Program Manager, Government & Workforce Partnerships
Program Operations - Based in New York City
sarah.hinstorff@generalassemb.ly

Sarah is GA's Program Manager for Government and Workforce Partnerships, facilitating the implementation of community reskilling collaborations and forging connections with workforce stakeholders. She began her career in workforce development at Center for Employment Opportunities (CEO), a national nonprofit supporting job seekers who recently returned home from incarceration. In her first two years, she managed the organization's largest grant portfolios totalling over $18M. In her second role with the organization as Senior Associate of Inclusive Hiring Workforce Advisory Services, she directly counseled leadership at major Fortune 100 companies to update their HR policies and practices to be more inclusive of job seekers with past convictions. Sarah brings her expertise in fundraising, managing community partnerships, and collaborating with employers to her role with GA. She is passionate about increasing workforce equity through direct investment in workers, reimagining the employment ecosystem, and building concrete tools for upskilling through nontraditional education pathways.

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Reference Articles and Materials

- GA 2022 Outcomes Report
- Software Engineering Immersive Curriculum
- GA's Community Reskilling White Paper (released January 2022)
- Article: The Buffalo News | New Western New York tech boot camp: 'A shining example of the power of diversity'
- Article: WKBW Buffalo | Boot camp to train for high-tech jobs

GREATER SACRAMENTO
ECONOMIC COUNCIL

October 21, 2022

Amanda Norton
Economic Development Manager
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Dear Amanda,

The Greater Sacramento Economic Council enthusiastically support General Assembly's (GA) proposal to the City of Rancho Cordova's Workforce Recovery Program. The GA team is well equipped to continue to offer their proven immersive training courses to reskill workers into careers in tech, enabling residents of Rancho Cordova to find new career opportunities.

In September 2020, the Greater Sacramento Economic Council (GSEC) launched the Digital Upskill Sacramento Program, bringing together General Assembly, Merit America, and the Greater Sacramento Urban League (GSUL) to reskill Sacramentans affected by COVID-19, specifically focusing on candidates from underrepresented communities. Forty learners enrolled in GA's immersive Data Analytics course or Merit America's IT Professional track, with tuition, career coaching and job placement assistance fully covered via CARES Act funding through the City of Sacramento. This partnership yielded incredible results with 95% of learners graduating from both programs and 87% of graduates finding full-time roles with companies in the region like Zennify, VSP and Accenture. The contract value for this project was $450,000 with the contract beginning in September 2020 over a year term.

We believe GA's expertise in building local training opportunities and partnerships will continue to be meaningful to the city of Rancho Cordova as it grows its portfolio of technology training. If you have any questions, please do not hesitate to contact me.

Sincerely,

Scott Powell

Executive Vice President

TECHBUFFALO

247 Cayuga Road, Suite 50
Buffalo, New York 14225

Amanda Norton
Economic Development Manager
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Dear Ms. Amanda Norton,

I am writing to submit a letter of support for General Assembly's (GA's) proposal to the City of Rancho Cordova's Workforce Recovery Program. The GA team is well equipped to continue to offer their proven immersive training courses to reskill workers into careers in tech, enabling residents of Rancho Cordova to find new career opportunities locally and nationally.

Over the past two years, TechBuffalo and a coalition of community organizations and local companies partnered to upskill and reskill over 900 Buffalo metropolitan-area and Western New York residents in technology related skills through the WNY Tech Skills Initiative. With TechBuffalo as a thought leader and convener, GA worked with the coalition to offer open access to introductory classes and workshops and to fully fund seventy-five (75) enrollments into GA's part-time evening skill building classes.

In late 2021, M&T, TechBuffalo, and four other regional employers co-created a new immersive 12-week training opportunity in Data Analytics. This inaugural pilot cohort provided GA's immersive training to 19 students representing Buffalo's diverse communities. This past April, we were excited to celebrate a 100% graduation rate for this first cohort with 15 out of 19 of graduates already finding employment in the field within 180 days post graduation.

Training was provided from Monday January 24, 2022 to Friday, April 18, 2022 with up to three months of career coaching services post graduation. (The contract covered the cost of training, contextualization of curriculum to meet employer needs and program management support for a period of eight months. For specific information on the contract value, please reach out directly.) This community reskilling partnership with GA has been a key component in developing Buffalo's tech community and building a regional talent pipeline that immediately responds to the needs of our local employers. We are excited to share that this partnership will continue with our next Data Analytics Immersive cohort beginning in early 2023, which includes continued investments from local employers.

We believe GA's expertise in building local training opportunities and partnerships will continue to be meaningful to the city of Rancho Cordova as it grows its portfolio of technology training.

For further information and comments, feel free to contact me at: stanbakuchi@techbuffalo.org or 716-229-0679.

Sincerely,

Sarah Tanbakuchi

Sarah Tanbakuchi
stanbakuchi@techbuffalo.org
President and CEO
TechBuffalo
247 Cayuga Rd Suite 50
Buffalo, NY 14225

St.Nicks Alliance
Where Opportunity Grows

Amanda Norton
Economic Development Manager
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

October 20th, 2022

Dear Ms. Amanda Norton,

I am writing to submit a letter of support on behalf of General Assembly (GA) and their proposal for the City of Rancho Cordova's Workforce Recovery Program. The GA team is well equipped to offer their immersive courses to upskill local workers into careers in tech, enabling Rancho Cordova residents with barriers to employment enter the workforce in skilled occupations.

St. Nicks Alliance, a Brooklyn-based nonprofit, seeks to transform the lives of low- and moderate-income people through employment, education, housing, and health care. We do this by delivering impactful services with measurable outcomes across our community.

Leveraging a mix of public and private funding, St. Nicks and GA began collaborating in late summer 2022 on an innovative Data Analytics pre-apprenticeship training. This partnership leverages GA's core data analytics curricula to build a shortened but impactful 8-week training experience to prepare graduates for careers in data. Through this model, GA provides hands-on, in-person training at their New York City campus, covering Excel, SQL, and Tableau fundamentals. Following GA instruction, St. Nicks Alliance offers additional tutoring, funding to earn industry-recognized certifications in data, and career coaching. Upon graduation, St. Nicks Alliance will match students with paid internships and continue to support their long-term goals to access careers in tech.

This collaborative model allows both organizations to leverage their strengths to reskill our local community. GA activates its skilled instructors and curricula, while St. Nicks Alliance builds upon our existing relationship with job seekers. Together, our expectation is to meet learners' immediate needs and set them on a path toward long-term upward mobility. We are progressing smoothly through our pilot cohort of 13 learners, and are eager to share reflections and success stories later this year.

We believe GA's expertise in building local training opportunities and partnerships will continue to be meaningful to the city of Rancho Cordova as it grows its portfolio of technology training. We also see GA as a partner with proven experience engaging with local community organizations to strengthen place-based initiatives such as these. For additional information, feel free to contact me at: lrothchild@stnicksalliance.org or 718-302-2057 ext 416.

Sincerely,

Larry Rothchild

Larry Rothchild

Director, Workforce Development

St. Nicks Alliance

790 Broadway - 2nd Floor

Brooklyn, NY 11206

718-302-2057 ext 416

P: 916.361.8684 F: 916.361.8683 www.TheFCCP.org

FOLSOM CORDOVA Community Partnership

10665 Coloma Rd. Suite 200 · Rancho Cordova, CA 95670

Amanda Norton
Economic Development Manager
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Dear Ms. Norton,

On behalf of the Folsom Cordova Community Partnership (FCCP), please accept this letter of support for General Assembly's (GA) application for the City of Rancho Cordova's Workforce Recovery Program.

We strongly support this grant application and its focus reskilling local workers into careers in technology, enabling residents with barriers to employment enter the workforce in high demand skilled occupations.

FCCP is a community-based non-profit dedicated to empowering and supporting families as they identify their needs and reach their goals. Through our Job Center and Family Resource Center, we create a one-stop operation for our community to access vital services to create family stability, launch their careers, build self-sufficiency and upward mobility. Our primary service area is east Sacramento County with our Job Center and Family Resource Center located in Rancho Cordova.

In 2021, both FCCP and GA received funding from the city of Rancho Cordova's Economic Development Department. This year, we hope to strengthen our impacts and foster a stronger local workforce system through collaboration. We envision a cross-referral collaborative between GA and FCCP, in which GA provides advanced training opportunities and FCCP provides case management and wraparound services where needed.

GA's first cohort with the city of Rancho Cordova and partnership with the Greater Sacramento Economic Council's coalition to upskill workers in the wake of the Covid-19 pandemic illustrate the organization's commitment to our local community and ability to achieve concrete employment outcomes. We wholeheartedly support GA's application to continue their work in the region, and look forward to supporting them by identifying new Rancho Cordova candidates.

We believe GA's expertise in building local training opportunities and partnerships will continue to be meaningful to Rancho Cordova residents as it grows its portfolio of technology training. We also see GA as a partner with proven experience engaging with local community organizations to strengthen place-based initiatives such as these. For additional information, feel free to contact me at: RSanger@theFCCP.org or (916) 361.8684 x290.

Sincerely,

Robert Sanger
Executive Director
RSanger@theFCCP.org
(916) 361.8684 x290

Amanda Norton
Economic Development Manager
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Dear Ms. Amanda Norton,

I am writing to submit a letter of support on behalf of General Assembly (GA) and their proposal for the City of Rancho Cordova's Workforce Recovery Program. The GA team is well equipped to offer their immersive courses to upskill local workers into careers in tech, enabling Rancho Cordova residents with barriers to employment enter the workforce in skilled occupations.

The United Way of the California Capital Region serves families in need throughout the greater Sacramento area. Throughout existing workforce development and digital equity programming, we offer learners basic technology and job training. We do not currently offer an advanced technology career training pathway, and have been searching for a partner to provide next-step options for our participants. Our team will gladly refer qualified Rancho Cordova students and alumni to continue their education through GA's Software Engineering Immersive.

GA's first cohort with the city of Rancho Cordova and partnership with the Greater Sacramento Economic Council's coalition to upskill workers in the wake of the Covid-19 pandemic illustrate the organization's commitment to our local community and ability to achieve concrete employment outcomes. We wholeheartedly support GA's application to continue their work in the region, and look forward to supporting them by identifying new Rancho Cordova candidates.

We believe GA's expertise in building local training opportunities and partnerships will continue to be meaningful to the city of Rancho Cordova as it grows its portfolio of technology training. We also see GA as a partner with proven experience engaging with local community organizations to strengthen place-based initiatives such as these. For additional information, feel free to contact me at: maury.nickelson@ucwccr.org or 916.368.3029.

Sincerely,

Maury Nickelson

Maury Nickelson
Digital Equity & Inclusion Manager
United Way California Capital Region
10389 Old Placerville Road, Sacramento, CA 95827
916.368.3029
maury.nickelson@ucwccr.org

CITY OF RANCHO CORDOVA WORKFORCE RECOVERY PROGRAM
NOFA
Proposer: Northern California Construction Training, Inc.

City of Rancho Cordova
Economic Development
2729 Prospect Park Drive, Rancho Cordova, CA 95670

October 21, 2022

INTRODUCTORY LETTER

SUMMARY

Northern California Construction Training Inc. is at the legal address of PO Box 293585 Sacramento, CA. Phone Number 916-387-1564. Primary Contact Name: Jake Meehan-Vice President

Northern California Construction Training, Inc. (NCCT) is a non-profit pre-apprenticeship training school established in 1994 that has trained over 3000 students using a construction curriculum approved by the Department of Apprenticeship Standards, with special focus on disadvantaged, underserved, underrepresented, underemployed populations of justice involved individuals looking to move out of poverty and seeking careers in the construction industry. We understand that the increase in unemployed workers due to the COVID-19 Crisis makes enhanced training and job placement assistance more important than ever as we emerge from the pandemic, to help rebuild the economic sustainability of the Rancho Cordova Community. Current recruiting efforts include job and resource fairs, unemployment offices, career centers, and partnering with agencies such as Sacramento Employment and Training Agency (SETA), County Offices of Education, the Department of Corrections and county Probation Offices who provide resources in recruiting and referral efforts.

As of October 17th, 2022, NCCT employs between 20-35 employees. There will be up to two Journeyman Training Instructors, one Recruitment & Job Placement Coordinator, one Program Evaluator dedicated to the collection of statistical data and case management, and one Contract Manager and Primary Liaison in charge of the oversight of program goals and assisting with completion of the reporting and follow up guidelines. In total there will be five NCCT Staff members ensuring that the program directives and goals are met. We have attached a financial reference for your review. **(See Appendix A)**

CITY OF RANCHO CORDOVA WORKFORCE RECOVERY PROGRAM
NOFA
Proposer: Northern California Construction Training, Inc.

RANCHO CORDOVA WORKFORCE RECOVERY PROGRAM
BUDGET NARRATIVE REQUIREMENTS AND ITEMIZED FUNDING REQUEST

The purpose of the Budget Narrative is to provide support and an explanation for the amounts requested in the Itemized Funding Request.

Cost Categories:

Salaries and Benefits: Includes Wages, Payroll Taxes & Insurance, Benefits, Workers Compensation

- **Instructors (2)**-40 hours a week Wage of no more than $55.00 per hour and Fringe Benefit Package of no more than $30.00 per hour per current Union Requirements. Responsibilities include making lesson plans, teaching construction technology curriculum, overseeing all classroom and shop lessons, job-site training, stocking material needed for lessons, scheduling certification trainings.

- **Recruitment & Job Placement Coordinator**-40 hours a week Wage of no more than $55.00 per hour and Fringe Benefit Package of no more than $30.00 per hour per current Union Requirements. Responsibilities include marketing and recruitment of target population through job centers and other resource events, scheduling apprenticeship coordinator job talks, finding and sharing current job leads, IEP oversight, job placement and job follow up reporting

- **Program Evaluator**-20 Hours a Week Wage of up to $35.00 per hour and Benefit Package of up to $10 per hour. Responsibilities include enrolling new students, case management, student assistance with barriers-such as DMV issues, managing up to date attendance records, ordering supplies, preparing progress reports and certification documents, assisting students with resumes and applications.

- **Contract Manager/Primary Liasion**-20 Hours a Week Wage of no more than $55.00 per hour and Fringe Benefit Package of no more than $30.00 per hour per current Union Requirements. Responsibilities include oversight and execution of efficient progress

towards program goals and assisting with completion of all reporting and follow up contractual guidelines.

Services and Supplies: Itemization of all services and supplies to be purchased with grant funds to support the grant activities.

- General office supplies-include paper, pens, pencils, printer rental and ink and other office and case management supplies. Estimated cost is approximately $5000 annually
- Training materials-include testing and instructional materials, lumber and building materials such as nails, screws, paint, drywall mud, and other direct project related supplies including the maintenance, repair, or replacement of shop tools when necessary. Estimated cost is $1250 per month x 12 months for a maximum of $15,000.
- Program Completion/Job Placement Stipend-To be used to cover the costs associated with Trainee's Union Dues and Initiation, Tools, Boots and All Certification Costs for up to fifty trainees. Estimated cost, is $1000 x 50 trainees for a maximum of $50,000.

Indirect Costs: Itemization of all indirect costs to be covered with grant funds to support the program goals and success.

- Administrative support, Persimmony data tracking platform fees, site fees including rent, utilities, communication, insurance and licensing, staff credentialling and clearance, drug testing, staff safety trainings, Management & miscellaneous trainings, meetings, travel costs, event coordination & preparation.

RANCHO CORDOVA WORKFORCE RECOVERY PROGRAM BUDGET BREAKDOWN 1.1.23-12.31.23				
Salaries & Benefits		Hourly	Weekly (20-40 HRS)	Annually (52 Weeks)
Instructor				
Instructor 1 Wages	up to $55.00 per hour 40 hours a week x 52 Weeks=	$ 55.00	$ 2,200.00	$ 114,400.00
Instructor 2 Wages	up to $55.00 per hour 40 hours a week x 52 Weeks=	$ 55.00	$ 2,200.00	$ 114,400.00
Payroll Taxes & Insurance	20% of total Wages	$ 22.00	$ 880.00	$ 45,760.00
Benefits				
Instructor 1 Benefits	up to $30.00 per hour 40 hours a week X 52 weeks	$ 30.00	$ 1,200.00	$ 62,400.00
Instructor 2 Benefits	up to $30.00 per hour 40 hours a week X 52 weeks	$ 30.00	$ 1,200.00	$ 62,400.00
Workers Compensation	Estimated at $280 per month	$ 1.62	$ 64.61	$ 3,359.93
*WC = Wages * .0165 (89% multiplier)*				
Recruitment and Job Placement Coordinator				
Wages	up to $55.00 per hour 40 hours a week x 52 Weeks=	$ 55.00	$ 2,200.00	$ 114,400.00
Payroll Taxes & Insurance	20% of total Wages	$ 11.00	$ 440.00	$ 22,880.00
Benefits	up to $30.00 per hour 40 hours a week X 52 weeks	$ 30.00	$ 1,200.00	$ 62,400.00
Workers Compensation	Estimated at $125 per month	$ 0.81	$ 32.31	$ 1,679.96
*WC = Wages * .0165 (89% multiplier)*				
Program Evaluator				
Wages	up to $35.00 per hour 20 hours a week x 52 Weeks=	$ 35.00	$ 700.00	$ 36,400.00
Payroll Taxes & Insurance	20% of total Wages	$ 7.00	$ 140.00	$ 7,280.00
Benefits	$790.56 per month	$ 9.12	$ 182.44	$ 9,486.72
Workers Compensation	Estimated at $10 per month	$ 0.15	$ 2.99	$ 155.50
*WC = Wages * .0048 (89% multiplier)*				
Contract Manager				
Wages	up to $55.00 per hour 20 hours a week x 52 Weeks=	$ 55.00	$ 1,100.00	$ 57,200.00
Payroll Taxes & Insurance	20% of total Wages	$ 11.00	$ 220.00	$ 11,440.00
Benefits	up to $30.00 per hour 40 hours a week X 52 weeks	$ 30.00	$ 600.00	$ 31,200.00
Workers Compensation	Estimated at $125 per month	$ 0.81	$ 32.31	$ 1,679.96
*WC = Wages * .0165 (89% multiplier)*				
Services & Supplies				
Training Materials	up tp $1250. 00 per month	$ 7.21	$ 288.46	$ 15,000.00
Office Supplies	up to $5000 Annually	$ 2.40	$ 96.15	$ 5,000.00
Program Completion/ Job Placement Stipend	*Average cost per student is $1000 up to 50 students	$ 24.04	$ 961.54	$ 50,000.00
**To be used to cover the costs associated with Union Dues, Inititation, Tools, Boots, Certifications & other Student Related Assistance Costs*				
Indirect Costs	15%	$ 70.82	$ 2,391.12	$ 124,338.31
	MAXIMUM TOTAL COST	$ 542.98	$ 18,331.93	$ 953,260.39

REFERENCES

Sacramento County Office of Education
Contact Name: Jackie White, Assistant Superintendent
Address: 10474 Mather Blvd. Mather CA 95655
Phone: 916-228-2500
Email: jwhite@scoe.net
Industry: Department of Education
Services Provided: 20 plus years of partnership training Sacramento youth and adult populations in Pre-Apprenticeship Construction Trades and CTE with subsequent job placement of successful graduates. Funding has ranged from $185K per program to $550K+ per program annually.

City of Sacramento
Contact Name: Jeff Harris, City Council
Address: 915 I Street. Sacramento, CA 95814
Phone: 916-264-5011
Email: jsharris@cityofsacramento.org
Industry: City Council
Services Provided: Worked with the City of Sacramento as a firsthand experience to build the winter triage center for the homeless population of Sacramento with our trainees. Funding granted for this project was $1500 as well as priceless firsthand training for our participants.

El Dorado County Probation
Contact Name: Brian Richart, Chief Probation Officer
Address: 3974 Durock Rd. Shingle Springs, CA 95682
Phone: 530-621-5625
Email: Brian.Richart@edcgov.us
Industry: Probation
Services Provided: 5 plus years of partnership training El Dorado justice involved and local populations in Pre-Apprenticeship Construction Trades and CTE with subsequent job placement of successful graduates. Funding has ranged from $117K to $258K annually.

Stanislaus County office of Education
Contact Name: Kevin Fox, Director CTE
Address: 1100 H Street. Modesto, CA 95354
Phone: 209-238-1516
Email: Kfox@stancoe.org
Industry: Department of Education
Services Provided: 10 plus years of partnership with Stanislaus County teaching young adults working towards obtaining their HISET/GED, Pre-Apprenticeship Construction Training with subsequent Job Placement of successful graduates. Funding has ranged from $116K to $169K annually.

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501(c)(3): **(See Appendix B)** – 2 Pages
Current Business License for Rancho Cordova: **(See Appendix C)** – 1 Page

NCCT's capacity to provide services stems from a solid foundation of social and employment soft skills needed to re-enter the workforce, which focus on training in the construction industry as well as creating Career Pathways into the building trades. Our experience stands to show the objectives of this funding program are well within our capabilities and will not be inhibited by any existing contractual commitments. We recognize and stand firmly behind the positive outcomes that this contract aims to accomplish within the dedicated time frame. Our intent is to fulfill the duties stated within this NOFA to our utmost capabilities, and to enrich the lives of those often abandoned when help is needed most. We graciously thank you for your consideration in this funding opportunity.

Thank you,

Jake Meehan, Vice President
Northern California Construction Training, Inc
jake@ncctinc.org
Phone: 916-869-5042
Fax: (916) 387-1581

Northern California Construction Training

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P.O. Box 293585, Sacramento CA 95829-3585 • 10411 Old Placerville Rd. STE 205, Sacramento, CA 95827
Telephone (916) 387-1564 Fax (916) 387-1581 • www.ncct.ws
A non-profit community-based organization.

CITY OF RANCHO CORDOVA WORKFORCE RECOVERY PROGRAM
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QUALIFICATIONS AND EXPERIENCE

a. NARRATIVE STATEMENT

Northern California Construction Training, Inc. (NCCT) is a community-based, non-profit organization seeking to provide vocational education and construction training. The program is structured to enhance our students' ability to find gainful employment within the construction industry. In these unprecedented times we are acclimating our program to be even more data driven in the arena of follow-up services, post-graduate tracking and statistical data. The goal of NCCT is to increase career pathways into the trades and help the residents of Rancho Cordova hit hardest by the economic crisis of COVID-19 by helping to remove barriers to employment and enter the workforce into a skilled occupation, making them productive members of society once again.

Governed by a Board of Directors comprised of business and community leaders, this program provides an alternative pathway into the Construction Trades by teaching community based educational and vocational educational services. NCCT has trained more than 3000 students over the last 28 years using the pre-apprenticeship construction curriculum approved by the California State Department of Industrial Relations, Division of Apprenticeship Standards.

NCCT applies a special focus on disadvantaged, underserved, underrepresented, underemployed populations, including youth, veterans, racially disparaged, and justice involved individuals looking to move out of poverty and seeking careers in construction and transportation industries. NCCT has trained individuals in Sacramento, Yolo, Placer, Stanislaus, San Joaquin, Tulare, Kern, Fresno, Mendocino, and Los Angeles Counties and has yielded very positive results, markedly in job retainment and recidivism reduction in the adult populations and school attendance and academic performance in the youth populations.

NCCT assists participants who are overcoming barriers from becoming employable, aside from learning hands-on and the fundamentals of construction, the participants learn how to be held accountable, punctual, show good attendance, pass drug screenings and work as a team to complete projects, as they would in the workforce.

Since 1994, an average of 86-94% NCCT graduates have been placed into building trades apprenticeship programs with salaries starting at over $16 per hour plus full benefits for themselves and their families. With the increase in unemployed workers due to the COVID-19 Crisis successful enhanced training and job placement assistance is critical as we emerge from the effects of the pandemic to rebuild Rancho Cordova Community's economic sustainability.

NCCT works closely with local governments in providing construction training, certifications, and participating in an extensive list of community projects. These partnerships have proven mutually beneficial and aid in our continued success throughout the years.

NCCT partners with many Community Based Programs, such as the Sacramento Kings, YCCA, Sac Republic, and the Sacramento River Cats, whose aim is to provide both career and job experiences to the area's populations. Students may participate in firsthand construction

experiences such as installing solar grids in the community, assisting in community projects, participating in the design/build shed building competition, and job site field trips. We aim to incorporate a multitude of these experiences as we can for our students during their time spent training.

NCCT has built longtime partnerships with various Trade Unions in the region that are willing to volunteer their time to speak with students about the union and the benefits of a trade union. Apprentice coordinators from the trades often participate as guest lecturers on site. We try to also help acclimate the students to the elements they will experience on an actual job site once employed by having them work out in both hot and cold climates when possible. (i.e., plumbing, wall texturing, electrical,) from industry certified contractors or the journeyman trade workers that NCCT employs, who teach the students what they are doing and why.

NCCT currently collaborates in formal agreements with the Northern California Laborers, Cement Masons and Clark Pacific. This allows eligible graduates to enter their state-approved apprenticeship training programs upon completion of the NCCT program. They have built strong working relationships with local and statewide Contractors to employ our graduates as well, such as Sacramento Municipal Utility District, Pacific Gas and Electric, and Teichert Construction, to name a few.

NCCT aims to articulate with more apprenticeship training programs and will continue to seek partnerships through collaborative meetings with industry leaders in apprenticeship programs based on our student's interests in specific trades within the construction industry. NCCT will collaborate on community-based construction projects, schedule industry guest speakers, work with employers to schedule job shadow opportunities, and work side-by-side with union mentors to produce learning-based projects in the workshop.

NCCT recruits through a variety of methods throughout Northern California. They maintain an NCCT website, reach out to health and human services agencies, and hold frequent job talks throughout California. NCCT aims to ensure the accurate collection of disaggregated data in each of the categories specified in the Scope of Work. Additionally, they are constantly reviewing options to ramp up community awareness of NCCT and our mission, which in turn will translate to higher enrollments and placements throughout the term of the contract period.

NCCT has provided career training to an extremely hard to serve diverse population for over 28 years. To ensure minimal turnover NCCT hires personnel who with experience and training in the field of interest of serving the populations we serve, and those interested in long term employment with an overall investment in our program and future. NCCT has seasoned employees ready to work on this project and support its overall success. Please see the attached organizational chart and brief resumes of key staff assigned to this project.

b. **KEY STAFF**

Training Instructor 1: Tyler Wood

Tyler Wood is a Journeyman Ironworker and has been working with NCCT since October 2015. He has been an Ironworker since 2001 and joined the union in 2008. Tyler is a structural and bridge certified welder, Weld Inspector, construction equipment operator and trainer. His

Certifications include OSHA 510, OSHA 30, and OSHA 500 Authorized Construction Trainer.

Training Instructor 2: Allyn Green
Allyn Green is a Journeyman Laborer and has been working with NCCT since May of 2021. Allyn has experience in road rehabilitation, operation of heavy equipment including forklift, skid steer, bobcat skip loader and compacting rollers, demolition, air tools, grading, setting forms, concrete work. Allyn also has experience in SWPP (environmental health and safety management), Water treatments plants, shoring trenches, setting retaining wall forms, road replacement, drilling, beam work and Traffic Control. He is an enthusiastic and driven instructor who brings an unmatched level of excitement and energy to our participants in their training and career pathways.

Recruitment and Job Placement Coordinator: Jeff Armstrong
Jeff Armstrong is the Job Placement Coordinator and has been working with NCCT for just over 3 years. Before joining NCCT in 2019, Jeff ran the Northern California Laborers Apprenticeship Program where he established connections with hundreds of area contractors. He uses those relationships to ensure that NCCT pre-apprentices have a variety of contractors to speak to as they pursue a career in the construction industry. Jeff Armstrong now works with area contractors to create and maintain pipelines for NCCT trainees to transition from being pre-apprentices to working in the construction industry as apprentices. Jeff meets with trainees as they progress through the Program to see what type of careers the trainees are pursuing and sets up interviews with potential employers. Additionally, Jeff attends job fairs, speaks to high school students, and recruits new students from community-based organizations throughout Northern California to promote NCCT and look for new trainees. Jeff has positive working relationships with local labor leaders and continuously places graduates in union affiliated apprenticeship programs.

Project Evaluator: Heather Doss
Heather Doss is a Lead Project Manager with over 15 years of experience. She has been working with NCCT for over 8 years. She excels in Contract Management, Statistical Data and Report Tracking, Case Management and Grant Writing. During her tenure here she has effectively coordinated, facilitated, maintained, and reported for Contracts collectively totaling over 20 million+.

Contract Manager/Primary Liaison: Jake Meehan
Jake Meehan will oversee the Program. Mr. Meehan is a Journeyman Laborer, has a Career Technical Education Credential in Building Trades and Construction, General Contractors License, and has been working for Northern California Construction Training, Inc. (NCCT) since 1999. He started as an instructor for our construction training program. Mr. Meehan has done carpentry work and instruction on all construction projects and is now the Program oversite for all NCCT Programs. Mr. Meehan will the Primary Liaison for the Rancho Cordova Program. He will be readily available for every aspect of this program, attend meetings with personnel and project partners to ensure completion of all requirements and funding goals.

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c. NON-PROFIT INFORMATION

Name: Northern California Construction Training, Inc. (NCCT)
Incorporation Date and Place: June 1,1995 in Sacramento, CA 95833.
IRS Tax Status: 501 (c) (3) Non-Profit in good standing.
Annual Budget 2021-2022-Total of All Contracts 2,182,131.05

d. MAJOR SOURCES OF FUNDING, JURISDICTIONS & RELEVANT PROJECTS:

Major Funding Sources:

Sacramento County Office of Education
10474 Mather Blvd. Mather, CA 95655

El Dorado County Office of Education
6767 Green Valley Road, Placerville, CA 95667

El Dorado County Probation
3974 Durock Rd., Suite 205, Shingle Springs, CA 95682

Washington Unified School District
930 Westacre Rd., West Sacramento, CA 95691

Twin Rivers Unified School District
5107 Dudley Blvd., McClellan Park, CA 95652

Stanislaus County Office of Education
1100 H Street, Modesto, CA 95354

San Joaquin County Probation
24 S Hunter Street, Suite 201, Stockton, CA 95202

Manager Career Solutions
333 Wilshire Blvd., Suite 405, Los Angeles, CA 90010

Employment Training Panel
1100 J Street, Sacramento, CA 95811

Raley's
500 West Capitol Avenue, West Sacramento, CA 95605

SMUD
PO Box 15830, Sacramento, CA 95852

Sacramento Kings
500 David J Stern Walk, Sacramento, CA 95814

Jurisdictions: Counties of Sacramento, Placer, Yolo, El Dorado, San Joaquin, and Stanislaus

Relevant Projects:

Providing hands-on and classroom instruction, instructional supplies, administration of construction training programs, certification classes, job readiness, job placement and support.

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Project Locations Include:
NCCT Construction Class 10150 Missile Way Mather, CA 95655
NCCT Welding Class 10190 Missile Way Mather, CA 95655
E.L Hickey Community School 2040 Ethan Way Sacramento, CA 95825
Sacramento Youth Detention Facility 9601 Kiefer Blvd., Sacramento, CA 95826
Gold County Fairgrounds 209 Fairgate Road Auburn, CA 95603
Bryte Elementary School 1290 Carrie Street West Sacramento, CA 95605
Vista Nueva High School 2035 North Avenue Sacramento, CA 95835
Foothill High School 5000 McCloud Drive Sacramento, CA 95842
Stanislaus County Office of Education 1325 H Street Building B Modesto, CA 95453
Stockton Fairgrounds 1658 South Airport Way Stockton, CA 95206

PROJECT DESCRIPTION
a. Name of Project: Rancho Cordova Workforce Recovery Program
b. Project Design: Construction in Northern California is expected to experience steady growth for the next five to seven years. This opportunity will provide both high paying jobs and pathways to careers in a very diversified industry.

To meet this demand, NCCT will focus on aggressive recruiting. Through an extensive history of meeting recruits, NCCT knows that many people interested in a construction trades career have not pursued it because they do not know where to start. Addressing this barrier has always been one of our strengths.

In addition to teaching students' new skills, we recognize that without the assistance of job placement the student's potential may never be fulfilled. That is why this is a core component of our mission. Our Instructors and Job Placement Coordinator regularly meet with students to discuss possible career paths. Employers and union representatives make regular appearances in classrooms to educate students on topics from upcoming projects to specialized needs in the industry and how to learn the skills to perform them.

A student may not have considered a career as a road striper until an employer tells them about it. The same goes for a career in traffic control (which is the fastest growing sector of the entire construction industry) or an electrician installing electrical vehicle charging stations. These are all topics we cover at NCCT.

With respect to our recruiting process, we have long had an open-door policy. Our Job Placement Coordinator works one on one with students. especially those in need of a second or third chance at success. NCCT recruits through job fairs open to all, or specifically for a targeted population, such as women or those who have been through the justice system. Additional outreach effort includes job training centers, high schools, and community centers.

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NCCT's goal is to increase jobs and provide the resources necessary for our target demographic to become self-sufficient. The training is open to the public; however, it will target communities with at risk adults and youths who are low-to-moderate income, minorities, ex-offenders, parolees, probationers and more recently those effected by the global pandemic. The population served may include anyone from juveniles in court appointed schools and detention facilities to college level adults. A of the population served includes those involved with the criminal justice system. NCCT has a long history of working directly with the probation offices to assist with employment success, while reducing recidivism.

The intake process for joining NCCT starts with completion of the enrollment documentation. The enrollment documents include basic personal information as well as a list of barriers the client may be experiencing. Barriers often listed may include lack of education, lack of job readiness skills, legal issues or drug and alcohol dependency. NCCT will review and discuss any barriers to employment listed and work directly with the client to ensure success. NCCT promotes and recruits new clients by participating in job talks and job fairs at local schools, probation offices, and job training centers. The successful working relationship NCCT has already established with of these entities allows for recruitment through the entity itself.

Students gain experience through a combination of classroom instruction and direct experience. Our DAS approved curriculum touches base on over 22 different construction trades so that no matter which trade the student wishes to enter, they will be trained to use a variety of tools, equipment, and materials to aid their success in the industry. Safety is paramount in the construction industry, so NCCT students will also be able to earn a variety of safety related certifications while in training.

NCCT runs year-round on an open enrollment schedule, allowing for quick entry into training. While the length of time in training can vary from student to student, graduation and job placement is dependent upon instructor clearance. There is no maximum amount of time a student can spend in the Program. NCCT works with the learning pace of all participants.

Employers regularly visit our training site looking for well-trained new hires and set up on the spot job interviews. Reputation is key and NCCT's long history of turning out skilled hire worthy graduates has paid off for decades.

NCCT students are not just exposed to their instructors. An entire staff dedicated to guiding them from near graduates to high wage earners plays a significant role in their success. Working with the trainees on their individual goals allows us to focus strongly on necessary certifications to get them into the career of their choosing. Prospective employers that use these certifications to help gauge a trainee's capabilities, become much more enticed in hiring from NCCT graduates.

Additionally, NCCT's relationships with apprenticeship programs and area employers allow monitoring of the apprentice's progress after graduation and job placement. Should a situation arise where additional training might help a former student excel in their new job, they are always welcomed back into the program.

NCCT has, from its beginnings, focused on job placement. Partnering and staying engaged with local employers and Unions helps us provide the training the industry currently needs and has been key to our success. This allows NCCT to monitor its offerings so both student and employer benefit from the NCCT experience. NCCT is fortunate in that our partners share their needs as technology changes and job opportunities shift throughout the industry with us so we can evolve to meet them.

Both employers and local apprenticeship programs know that NCCT graduates are prepared, aware of employer expectations, and ready to excel. This is the result of preparation which is an overall aspect of what NCCT's Training Program is all about.

c. PAST PERFORMANCES AND PLANNED OUTCOMES

A major component of the program will be helping the target population affected economically by the COVID-19 Pandemic Crisis re-integrate into a supportive community of instructors and employers who will help them advance in their careers through culturally appropriate learning, job training, work, and relational experiences. After a detailed application process that includes a Priority Worker Questionnaire to determine the economic impact of each student, NCCT tracks student progress with Persimmony, a data management program that has streamlined our statistical analysis of the populations that we help in the community and helps us accurately evaluate our program efficacy. It allows us to collect qualitative & quantitative data, program assessments, client demographics, and authorization information (medical, financial, educational, and/or governmental data). Persimmony allows us to securely store, track and report on client- and program-level data specific to our unique needs including student demographics, the types of services provided, assessment data before, during and after program graduation, and job placement information, all with customized confidentiality and data sharing protocols.

Having this information at our fingertips ensures consistency and accuracy throughout the reporting process, allowing NCCT to track, report, and deliver thorough, outcome-based reports aligned to our strategic and operational plans when requested by our supporting partners. Between the use of the DAS Approved Curriculum, our technique of data collection, and our 28 years of experience in this area, we anticipate maintaining an employment placement rate of 86% or greater.

Current reports for the last 2 years show a percentage of 88% or 165/186 of NCCT graduates successfully placed into employment, 97% of those job placements were Union Apprenticeship Jobs, and 16% of all job placements were in the City of Rancho Cordova.

NCCT recently implemented an update to the Persimmony Portal that will allow us to begin tracking Employment retainment rates as well. NCCT's Job Placement Coordinator has started to follow up with each graduate's employer to monitor their employment term, promotions and wage increases up to one year after completion. While NCCT cannot avoid program exit reasons due to attendance or voluntary dropouts, we have found that for the trainees that work to complete the program have higher levels of long-term success and reduced chances of unemployment or recidivism into the criminal justice system.

d. PARTNERSHIPS

Rancho Cordova is home to dozens of construction companies representing a wide range of industries such as fence building, concrete cutting, highway striping, as well as general contractors who focus on building or engineering construction. This provides NCCT an opportunity to find "homes" for our graduates locally, stimulation economic growth and giving Rancho Cordova based contractors the opportunity to not only hire locally, but confidently.

Many of these companies are affiliated with one or more unions – and their apprenticeship programs – which ensures a focus on continuing education and training, and factors highly into the graduate's future. These jobs will provide high wages and excellent benefits as well. They provide each graduate an opportunity to put their skills to use by improving local roads, parks, sidewalks, and everything else that makes a community a desirable place to live.

Additionally, NCCT has secured a partnership with the Folsom Cordova Adult School that provides a pipeline of new recruits who are eager to enter the construction industry. We are currently using this partnership to introduce an electricity course that will give graduates an edge in joining an electrical apprenticeship program or go to work for a local utility provider. An industry that is seeing its older workers retire and, therefore, seeing a rise in the demand of new workers.

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PROJECT EXPECTED TIMELINE

Milestone	Date	Key Prerequisite Milestone/Contingency
Implementation of Contract	01/01/23	Upon Contract Approval
Implementation of Recruitment/Enrollment	01/02/23	Upon Contract Approval
Construction Training	1/1/23-12/31/24	Ongoing-Upon Contract Approval
Recruitment/Enrollment	1/1/23-12/31/23	As needed- minimum of 10 students
Job Placement	Varies	Upon completion of training
Job Placement Stipends Awarded	Varies	Upon successful job retention

SOURCES AND USES OF FUNDS a.-c.

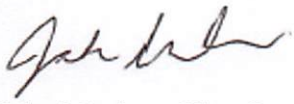
Funding Source	Committed Amount	Evidence of Funding Commitment
Sac County Office of Education	$133,101.00 Annually	Contract #221501
Provides construction education, training, and job placement for Cal-Works eligible clients.		
Sac County Office of Education	$219,441.00 per 6 months	Contract #230146
Provides construction education/training to juveniles of Court and Community Students		
Sac County Office of Education	$195,000.00 Annually	Contract #210534
Provides construction education/training/job placement to Dept. of Corrections & Probation Clients		
El Dorado County Office of Education	$22,830.19 Annually	Standard Written Agreement
Provides construction education/training & job placement 3 hours/weekly to EDCOE Charter Students		
El Dorado County Probation	$258,546.40 Annually	Agreement for Services #6492
Provides construction education, training, and job placement for 40 hours per week to EDCP Clients		
Twin Rivers Unified School District	$136,421.00 Annually	Purchase Order 231834
Provides construction education, training, and job placement for 40 hours/week to TRUSD students		
Sac County Probation Department	$123,177 Annually	Amendment #23-0225-4
Provides construction education, training, and job placement for 18 hours/week to SCPD Clients		
Stanislaus County Office of Education	$130,922.73 Annually	Contract Reference # 22-23
Provides construction education, training and job placement for youth and young adult STCOE students		
County of San Joaquin Probation Dept.	$233,546.00 Annually	Agreement # A-22-269
Provides construction education, training, and job placement for San Joaquin Probation Clients		
Washington Unified School District	$250,467.36 Annually	Vendor Agreement 6-13-22
Provides construction education, training, and job placement for Adult & Youth WUSD Clients		

CITY OF RANCHO CORDOVA WORKFORCE RECOVERY PROGRAM
NOFA
Proposer: Northern California Construction Training, Inc.

CONFLICT INTEREST STATEMENT

NCCT does not participate in activities or have relationships that will create a conflict of interest for NCCT, or the city of Rancho Cordova.

Thank you,



Jake Meehan, Vice President
Northern California Construction Training, Inc
jake@ncctinc.org
Phone: 916-869-5042
Fax: (916) 387-1581

EXCEPTIONS

None

Sacramento County Office of Education
EDUCATION EMPOWERS

October 17, 2022

Workforce Recovery Program
Notice of Funding Available through the American Rescue Plan Act
Economic Development Department

Subject: Letter of Support for Northern California Construction Training, Inc.

Dear Economic Development Department.

We are writing this letter in support of Northern California Construction Training, Inc. proposal titled: Notice of Funding Available through the American Rescue Plan Act. The Sacramento County Office of Education fully supports and partners with the efforts of Northern California Construction Training, Inc. (NCCT) to maintain a pre-apprenticeship program in the Sacramento County and surrounding areas. NCCT is designed to teach construction skills geared to prepare individuals for entry into the construction trades workforce. NCCT gives back to the community while simultaneously creating projects to give participants hands-on training and real-life job setting experiences. NCCT provides quality skill level programs, as mandated by the Department of Apprenticeship Standards, for disadvantaged, under-served, underrepresented, underemployed populations; including youth, veterans, and justice involved clients, and more recently those effected by Covid-19 to assist in their successful rehabilitation and employment within the construction trades. Without NCCT's commitment of helping these populations, the chances of recidivism and continued unemployment are greatly increased.

It is my understanding that NCCT is submitting a proposal for the Notice of Funding Available through the American Rescue Plan Act. which seeks to provide recovery from the economic impacts caused by Covid-19. Those directly affected by the COVID-19 Pandemic by way of continued unemployment or job dislocation have shown increased interest in Apprenticeship Construction Training as job placement has remained high in demand.

The Sacramento County Office of Education has worked with NCCT over the past 20 years. We have personally witnessed the dedication to offering quality construction job training, professional development, and soft skills support to connect underrepresented individuals. This has continued to be the case with those affected by Covid-19.

We feel that NCCT works hard to close gaps of employment, overcome employment barriers, and prepares the individuals for a smoother transition back into the workforce. We look forward to a long and continuing relationship with them. Since NCCT is providing such an important service, it is my pleasure to consider them a partner and to assist with our support of such a worthy program.

Sincerely,

Marc Nigel
Director – Sacramento County Office of Education

CEMENT MASONS LOCAL 400
810 W. STADIUM LANE
SACRAMENTO, CA 95834
Telephone (916) 565-0128 Fax (916) 565-0133
Toll Free (800) 566-4002

October 21, 2022

Subject: Letter of Support for Northern California Construction Training Inc.

Dear Application Review Committee:

Cement Masons Local 400 is pleased to support Northern California Construction Training Inc., (NCCT)'s proposal for funding from the City of Rancho Cordova through the **Workforce Recovery Program**.

Our organization has worked with NCCT on several community volunteer projects. We have seen how their pre-apprenticeship programs help to provide basic training opportunities for interested participants. Their intensive, skills-based training approach helps participants launch careers in the building trades and related construction sectors by providing them with experiences that help them determine the right fit for their futures.

The NCCT gives participants hands-on training and real-life job setting experiences which directly give back to the community and help its members, especially the disadvantaged, under-served, under-represented, and underemployed populations; including youth, veterans, justice involved clients and more recently those effected by COVID-19.

We have seen how the NCCT's involvement in a participant's life has provided a direct pathway to not only our trade as Cement Masons, but to other trades as well. We can testify that many of the participants who have taken part in the NCCT's pre-apprenticeship programs come prepared to excel in our own apprenticeship program, the Northern California's Cement Masons, Joint Apprenticeship & Training Committee, (JATC).

We ask the City of Rancho Cordova to consider NCCT as a recipient of funding through the **Workforce Recovery Program**.

Sincerely,

Cady J. Bik

Business Manager/ Financial Secretary
Cement Masons Local 400

LABORERS LOCAL 185
JUSTICE • HONOR STRENGTH

DOYLE S. RADFORD, JR.
Business Manager

ARMANDO CALZADA
Secretary-Treasurer

ARMANDO "AC" COVARRUBIAS
President

GARY SHARETTE
Vice-President

JOHN SALSER
Recording Secretary

LEONEL BARRAGAN
Executive Board

SEAN RADFORD
Executive Board

MARIO RODRIGUEZ
Auditor

FRANCISCO VILLARREAL
Auditor

JEFF BAILEY
Auditor

JAIME TORRES
Sergeant-at-Arms

1320 National Drive
Sacramento, CA 95834
(916) 928-8300 Office
(916) 928-8311 Fax

2210 Twin View Blvd
Redding, CA 96003
Mail to: P.O. Box 492830
Redding, CA 96049
(530) 221-0961 Office
(530) 221-0964 Fax

LiUNA! LOCAL 185
Feel the Power

October 20, 2022

Workforce Recovery Program
Notice of Funding Available through the American Rescue Plan Act
Economic Development Department

Subject: Letter of Support for Northern California Construction Training, Inc.

Dear Economic Development Department.

We are writing this letter in support of Northern California Construction Training, Inc. proposal titled: Notice of Funding Available through the American Rescue Plan Act. Laborers Local 185 fully supports and partners with the efforts of Northern California Construction Training, Inc. (NCCT) to maintain a pre-apprenticeship program in the Sacramento County and surrounding areas. NCCT is designed to teach construction skills geared to prepare individuals for entry into the construction trades workforce. NCCT gives back to the community while simultaneously creating projects to give participants hands-on training and real-life job setting experiences. NCCT provides quality skill level programs, as mandated by the Department of Apprenticeship Standards, for disadvantaged, under-served, underrepresented, underemployed populations; including youth, veterans, and justice involved clients, and more recently those effected by Covid-19 to assist in their successful rehabilitation and employment within the construction trades. Without NCCT's commitment of helping these populations, the chances of recidivism and continued unemployment are greatly increased.

It is my understanding that NCCT is submitting a proposal for the Notice of Funding Available through the American Rescue Plan Act. which seeks to provide recovery from the economic impacts caused by Covid-19. Those directly affected by the COVID-19 Pandemic by way of continued unemployment or job dislocation have shown increased interest in Apprenticeship Construction Training as job placement has remained high in demand.

Laborers Local 185 has worked with NCCT over the past 15 years. We have personally witnessed the dedication to offering quality construction job training, professional development, and soft skills support to connect underrepresented individuals. This has continued to be the case with those affected by Covid-19.

We feel that NCCT works hard to close gaps of employment, overcome employment barriers, and prepares the individuals for a smoother transition back into the workforce. We look forward to a long and continuing relationship with them. Since NCCT is providing such an important service, it is my pleasure to consider them a partner and to assist with our support of such a worthy program.

Sincerely,

Doyle S. Radford Jr.
Business Manager

Bank of Marin

October 21, 2022

Workforce Recovery Program
Notice of Funding Available through the American Rescue Plan Act
Economic Development Department

Subject: Financial Reference for Northern California Construction Training, Inc.

Dear Economic Development Department,

We are writing this letter as financial reference for Northern California Construction Training, Inc. regarding proposal titled: Notice of Funding Available through the American Rescue Plan Act.

Bank of Marin has had the privilege of serving as Northern California Construction Training Inc.'s bank for over 20 years. During that time, we have found NCCT to be of upstanding financial character, with current assets valued at $153,814.51 and with no meaningful debts. We look forward to continuing our long-standing relationship with NCCT.

Sincerely,

Matt Munoz
Assistant Branch Manager
916-231-6102

IRS Department of the Treasury
Internal Revenue Service

CINCINNATI OH 45999-0038

In reply refer to: 0248188030
Oct. 29, 2021 LTR 4168C 0
68-0360766 000000 00
00010255
BODC: TE

NORTHERN CALIFORNIA CONSTRUCTION &
TRAINING INC
PO BOX 293585
SACRAMENTO CA 95829

016805

Employer ID number: 68-0360766
Form 990 required: Yes

Dear Taxpayer:

We're responding to your request dated Oct. 20, 2021, about your tax-exempt status.

We issued you a determination letter in April 1996, recognizing you as tax-exempt under Internal Revenue Code (IRC) Section 501(c)(3).

We also show you're not a private foundation as defined under IRC Section 509(a) because you're described in IRC Sections 509(a)(1) and 170(b)(1)(A)(vi).

Donors can deduct contributions they make to you as provided in IRC Section 170. You're also qualified to receive tax deductible bequests, legacies, devises, transfers, or gifts under IRC Sections 2055, 2106, and 2522.

In the heading of this letter, we indicated whether you must file an annual information return. If you're required to file a return, you must file one of the following by the 15th day of the 5th month after the end of your annual accounting period:

- Form 990, Return of Organization Exempt From Income Tax
- Form 990EZ, Short Form Return of Organization Exempt From Income Tax
- Form 990-N, Electronic Notice (e-Postcard) for Tax-Exempt Organizations Not Required to File Form 990 or Form 990-EZ
- Form 990-PF, Return of Private Foundation or Section 4947(a)(1) Trust Treated as Private Foundation

According to IRC Section 6033(j), if you don't file a required annual information return or notice for 3 consecutive years, we'll revoke your tax-exempt status on the due date of the 3rd required return or notice.

You can get IRS forms or publications you need from our website at *www.irs.gov/forms-pubs* or by calling 800-TAX-FORM (800-829-3676).

If you have questions, call 877-829-5500 between 8 a.m. and 5 p.m.,

0248188030
Oct. 29, 2021 LTR 4168C 0
68-0360766 000000 00
00010256

NORTHERN CALIFORNIA CONSTRUCTION &
TRAINING INC
PO BOX 293585
SACRAMENTO CA 95829

local time, Monday through Friday (Alaska and Hawaii follow Pacific time).

Thank you for your cooperation.

Sincerely yours,

Warren R Burton

Warren R. Burton, Operations Mgr
Accounts Management Operations 1

CITY OF RANCHO CORDOVA

2729 Prospect Park Drive • Rancho Cordova, CA 95670 • (916) 851-8737

BUSINESS LICENSE

License not transferable • Not valid at any other location • Post in conspicuous place

EFFECTIVE DATE	EXPIRATION DATE	LICENSE NUMBER
10/20/2022	**10/20/2023**	**GBL-002987**

BUSINESS TYPE: **61: EDUCATIONAL SERVICES**

CONDITIONS

- **COMPLY WITH RANCHO CORDOVA ORDINANCES, CODES & REGULATIONS**

PRE-APPRENTICESHIP CONSTRUCTION TRAINING AND JOB PLACEMENT

OWNER(S)

NORTHERN CALIFORNIA CONSTRUCTION & TRAINING, INC.

DBA: **NCCT**

NORTHERN CALIFORNIA CONSTRUCTION & TRAINING, INC.
10411 OLD PLACERVILLE RD, 205
SACRAMENTO, CA 95827

LOCATION

10411 OLD PLACERVILLE RD, 205
SACRAMENTO, CA 95827

This license is issued without verification that the holder is subject or exempted from licensing by the state, county, federal government, or any other government agency.

NORTH STATE BUILDING INDUSTRY ASSOCIATION FOUNDATION

Amanda Norton
Economic Development Manager
City of Rancho Cordova
Economic Development
2729 Prospect Park Drive Rancho Cordova, CA 95670

Re: North State Building Industry Foundation proposal

Ms. Norton:

This is the introductory letter as defined in the Workforce Recovery Program Notice of Funding Availability.

Prime Organization: North State Building Industry Foundation (NSBIF)
1536 Eureka Road
Roseville, CA 95661
Jennifer Poff, Executive Director
jennifer@northstatebia.org
916.899.4101

Understanding of City's goals & objectives: The City's website states, "The city's Workforce Development Program offers FREE educational and training opportunities to Rancho Cordova residents who are unemployed, underemployed or want to upskill to compete for higher wage jobs."

NSBIF's proposal focuses on 18 to 30 year old city residents who are unemployed, underemployed or want to upskill to compete for higher wage jobs. The NSBIF offers work readiness preparation, connection to training and job placement in the energy, construction, utilities, and manufacturing Industries. Employment opportunities exist in the trades, professions, and business occupations of these industries.

Critical issues & challenges: In our experience, a stable home environment, lack of transportation, and sufficient childcare (for parents) represent the external barriers to training and employment. People who have been successful in our programs are people who want to make a change for the better in their lives and are able to persevere through the changes they need to make to be successful.

Milestone Tasks: Enroll 50 people, develop training/employment plans, placement into training, placement into employment, and retention on the job after 90 days.

Appropriate resourcing: We have dedicated staff and supportive services to assist participants.

Organization Information: The NSBIF was incorporated as a 501(c)(3) nonprofit social service organization in 2007. Attachment A is the IRS exemption form. Currently, the NSBIF has 9 employees and contractors. Two FTE employees will be working on this project. The financial reports for FY20 and FY21 can be found in Attachment B.

Applicant's Experience:

The North State Building Industry Association Foundation has been providing workforce development employment and training services since 2007 for the Energy, Construction, & Utilities (ECU) industries in the Greater Sacramento area.

In the past two years, we have been a service provider to:

- SETA, Sacramento City Unified School District, and the City of Sacramento, to provide a variety of work-based learning experiences, student internships, teacher externships, work readiness training, life skills training, job search training, and placement services to youth and young adults ages 16 to 24.
- Sierra, Consumnes, and Sacramento, City colleges to recruit students, provide scholarships, provide job search training, and place graduating students into jobs.
- Working with Home Builders and Trade Contractors we have provided student internships, summer jobs, and job fairs to hire graduating students in Placer and Sacramento counties.

In program year 20-21, we had a goal 120 individuals referred to companies and exceeded that goal by referring 408. We placed 51 participants in internships and placed 118 participants into jobs. We participated in 21 job fairs, Out of school youth had 24 participants and 19 presentations were given at local K-12 schools.

In program year 21-22, we had 591 job referrals made by our staff to industry employers, 62 youth received work readiness training, participated in 14 job fairs to recruit for programs, worked with 7 K-12 school districts to provide work-based learning experiences, 51 student interns, posted 1,899 jobs to our job board and sent 25,600 emails with job and training information to community members.

More details about our past outcomes can be found on page 12.

Detailed budget narrative and itemized funding request. (see Attachment C)

Three References:

Entity Name: SETA
Contact: Roy Kim
Address: 925 Del Paso Blvd Sacramento, CA 95815
Phone: 916-263-3800
Email: roy.kim@seta.net
References Industry: Governmental Organization Workforce Development
Since FY08-09 we have had over 25 contracts amounting to $5.55 million dollars to provide Work Readiness training, On-the-Job Training, Job Search, Life Skills, and Community Service experiences to Youth/Young Adults (18-24), refugees (especially Arminian, Russian, Ukrainian, and Iraqi's), Veterans, and Dislocated Workers. Upon completion of the program, we continue to follow up with the participants to help them get placed into employment. Our current funding is:

July 1, 2022 – June 30, 2023 for total cost of $191,438.00

Entity Name: City of Sacramento
Contact: Denise Malvetti, Andrew Kehoe, & Lindee Lane
Address: 915 I Street 4th floor Sacramento, CA 95814
Phone: 916-808-5300
Email: dmalvetti@cityofsacramento.org; akehoe@cityofsacramento.org; llane@cityofsacramento.org
References Industry: Governmental Organization Economic Development
Description of the Services provided: Since FY 18-19 we have had four projects with the City including recruiting and placing COVID effected residents into employment, recruiting, providing workforce readiness training, and placement into training and/or employment for 16-18 year olds (1000 Strong & Sacramento Youth Development Program) and provide work based learning experiences to high school youth. Total funds awarded to date $603,000. Currently, we are finishing up on the most recent projects and awaiting their next RFP.

SYDPF (Pathways 2 YES): July 1, 2021 – June 30, 2023 for total cost of $150,000.00

Entity Name: Los Rios Community College District
Contact: Theresa Milan
Address: 1410 Ethan Way Sacramento, CA 95825
Phone: 916-563-3221
Email: MilanT@losrios.edu
References Industry: Local Educational Agency: Community Colleges
Description of the Services provided: We have had a relationship with Los Rios CCD starting in FY 08-09 and continuing up to the present day. We have had 13 contracts totaling over $2.1 million dollars. In addition to the above we have been involved in projects linking middle schools, high schools, and community colleges, providing teacher

externships, afterschool middle school programs taught by college students. Our current funding is:
November 1, 2021 – June 30, 2023 for total cost of $57,500.00
September 1, 2022 – June 30, 2023 for total cost of $343,000.00

City of Rancho Cordova Business License: Attachment D

Sincerely,

Jennifer Poff

Jennifer Poff, CAE
Executive Director
North State Building Industry Association Foundation

2. Table of Contents

1. Letter of Introduction P. 1

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3. Qualifications and Experience P. 6

4. Project Description P. 8

5. Sources and Uses of Funds P. 15

6. Conflict of Interest Statement P. 15

7. Exceptions P. 15

8. Supportive Information P. 16
   Attachment A – IRS Nonprofit Status Certificate
   Attachment B – FY20 and FY 21 Audited Financial Statements
   Attachment C – Detailed Budget and Budget Narrative
   Attachment D – Rancho Cordova Business License
   Attachment E: Letters of Support
   E-1. Folsom Cordova Community Partnership Agency
   E-2.Nimbus Landscaping
   Attachment F: Post Secondary Training List

3. Qualifications and Experience

3.1 Description of each firm: The NSBIF is the sole organization responsible for implementing this project.

3.2 Key Staff

Jennifer Poff – Executive Director (4 weeks) – Primary Liaison
1536 Eureka Rd Roseville, CA 95661
916-899-4101
jennifer@northstatebia.org
Jennifer has 15 years experience working with associations and foundations building a pipeline of future employees for the professions she serves. In her current role, she oversees the day-to-day operations of the Foundation.

La Vonnia Deloach Haggerty – Director of Workforce Development (11 years)
5655 Hillsdale Blvd #8 Sacramento, CA 95842
lavonnia@northstatebia.org
916-212-1290
La Vonnia oversees our workforce development team at the Hillsdale location. She works with our at-risk youth helping them with education needs and supportive services while overseeing a team of 3 case managers. Additional responsibilities include assessment of participants, mentoring, job development, program oversight and training. La Vonnia makes sure that the goals we set for each program are met.

Rick Larkey – Technical Advisor
1924 Gold Nugget Place, Rancho Cordova 95670
916.202.2836
rick@northstatebia.org
Rick has 50 years experience in working as a community organizer, public administrator, and non-profit manager successfully operating workforce employment and training programs in Sacramento. He has lived in the Rancho Cordova area for over 20 years and as the Workforce Development Director of the Sacramento County Office of Education, operated the Rancho Cordova One Stop and Business Information Center at McGregor & Coloma Rd shopping center in partnership with the Rancho Cordova Chamber of Commerce. Rick served on the Rancho Cordova Chamber Board and for a time was the Interim Director. In 2007 he created the North State Building Industry Foundation as a 501(c)(3) and successfully operated the program until he stepped down as an Advisor in 2020. Rick will monitor and advise every aspect of the operation to ensure it has the necessary support to be successful.

3.4 Description of each firm:

The NSBIF is the sole organization responsible for implementing this project. We intend to involve social service agencies and community organizations as sources of referrals in the

outreach effort and assistance with support services where appropriate. Various employers will be involved in considering applicants and providing internships where appropriate. We would like to partner with the City to reach out to residents and where appropriate recruit residents to fill Rancho Cordova City positions.

Participant Outreach Efforts: The NSBIF will contact:

- The Rancho Cordova Community Council, Folsom Cordova Community Center, Rancho Cordova Youth Center, Volunteers of America, Next Move Homeless Services, refugee and immigrant programs, ex-offender programs all of the religious organizations, food lockers, service clubs, and sports leagues serving the Rancho Cordova area,
- Public agencies including the Employment Development Department, Department of Rehabilitation, public libraries, Department of Human Assistance, Cordova Parks and Recreation, Sacramento County Office of Education, Folsom Cordova Adult Education, Cordova High School, Rancho Cordova Police Department, the County Probation, Folsom Lake Community College: Rancho Cordova Center, Child Action, and various public officials like Ken Cooley, and Ami Bera to assist in getting the word out to residents;
- Homeowners associations, multi-family low Income housing property managers;
- Leave program handouts at retail centers like WalMart, KP International, Safeway, and the 99¢ Store.

Employer Outreach Efforts:

- We will invite the Economic Development Department of the City of Rancho Cordova, the Rancho Cordova Chamber of Commerce, Slavic Chamber of Commerce, and various other business groups to promote the various job fairs and targeted employer events we will be conducting.
- Working with the North State Building Industry Association, the National Association of Remodeling Contractors, the Sacramento Regional Builder's Exchange, and the Association of General Contractors-Sacramento-Sierra Chapter to promote their members contacting us concerning employment opportunities.
- We currently have a list of about 600 employers which we contact monthly to assess their employment needs.

3.5 For each nonprofit organization involved in the project, provide …….

This section is not applicable since we do not have any close partners to conduct this project; however, we do have some letters of support which we have placed in Appendix E to provide evidence that we do have pre-existing relationships in Rancho Cordova.

4. Project Description

a. Name of project: **Building Rancho Cordova's Workforce Today**

b. Project Design:

Goal: The goal of the RC Workforce Recovery Program is to increase access to energy, construction, utilities, manufacturing (ECUM) and production career pathways programs and help Rancho Cordova residents with barriers to employment enter the workforce in skilled and professional occupations.

Objectives:

1. By 12 months from the start of the program, NSBIF staff will have recruited, prepared and placed 35 Rancho Cordova participants with barriers to employment, to successfully enter the workforce in skilled and professional occupations.
2. By 12 months from the start of the program, NSBIF staff will have recruited, prepared and enrolled 15 Rancho Cordova participants with barriers to employment, to successfully enter skilled and professional occupational training programs including but not limited to apprenticeship, community colleges, and universities.

Strategies:

Target Population: The current population of Rancho Cordova is 82,244 based on the projections of the latest US Census estimates. According to the City's website, Rancho Cordova is the 29th most diverse City in the country White: 58.23% Asian: 13.70% Black or African American: 10.62% Two or more races: 8.37% With a population of 82,244, the average household income in Rancho Cordova is $82,417 with a poverty rate of 11.55% (9,500 people). About 22,000 are between the ages of 15 and 30. 10,400 (47%) male and 11,600 (53%) female. If all of the ratios hold up it means there are about 2,500 18 to 30 year old, low-income individuals.

Historically, we have served a majority of non-white participants. Our target population are low-income people who are not abusing drugs or alcohol, who want to be successful in life and are seeking assistance in stabilizing their home environment, seeking gainful employment, and learning how to successfully work.

We will be especially cognizant of the marginally employed and will seek to identify those individuals who would like to transition into better paying jobs.

Outreach: The innovative approach to our effort will be to advertise for training, placement into employment, and enrollment into work readiness training simultaneously.

b. Project Design Continued

- We will be recruiting people to orientations where we describe the programs and support to be received to help people be successful;
- At the same time based on employer need for workers, we will be holding job fairs and employer job talks to attract applicants for employers;
- Periodically, as training courses are offered we will conduct orientations to enroll people in a variety of courses offered by a host of training providers (see Attachment E: ECU Post-Secondary Training Programs)

The net result of this effort will be to attract a variety of people in various states of development and for those who want to work with us for nine to eleven months we will enroll in the program.

We propose four approaches to outreach:

- Community based organizations/religious organizations/sports leagues/public agencies referrals: Visit all of the organizations and distribute program flyers inviting interested people to contact us directly and/or sign up for an orientation.
- Public in person or virtual orientations/events. Host and/or attend community health fairs, career fairs, job fairs, parades, and other public events to sign people up, have a table at WalMart, KP International Market, etc;
- Social/digital media campaign to identify and target low income 18 to 30 year olds seeking a better job;
- Direct mail to Rancho Cordova residents: We do not have the means to do this at this point but will investigate with the City and SMUD about the feasibility of a mailer to residents about the program.

Application: For all of those interested in participating in the program they will fill out an application and provide documentation that verifies:

- They are residents of the City of Rancho Cordova;
- Legally in this country or citizens of the United States;
- Have a Social Security number;
- Work, education, and community activity history

Intake/Assessment/Enrollment:

- A case manager will be assigned to interview the person and have them take a series of reading, writing, and math tests, review their existing resume if it exists, and get a general idea of what their aspirations are for the program.
- If the applicant meets the standards they are enrolled and scheduled to attend a group session. If the reading or math standard is not met, 40 hours of tutoring is provided to help them reach the standards.
- Client suitability is assessed by inviting the applicant to sessions and giving work assignments. If the participant shows up and participates they are enrolled.

b. Project Design Continued

Case File: Every participant will have a case file where the application and supporting documentation is kept. Their progress will be tracked and samples of their work will be kept, including career exploration, a Personal Work Plan, a log of their participation in meetings.

Support Services: Gas cards and bus passes will be provided as needed. Participants will be referred to other services (shelter/housing, childcare, getting assistance with back rent, utility bills, etc.) as required.

Program Deliverables: A participant who fully completed the program will have the opportunity to leave with:

- **Individual Success Plan:** Components; one three-year goal with two one-year objectives and implementation steps for each objective. Including enrolling in a skills/professional training program.
- **Life Skills Certificate:** Will know why building wealth is better than buying things; have tips on low-cost healthy eating; understand how to rent an apartment; have a checking account; what budget is, how to buy/lease a car; time management;
- **A community service experience**: Most will participate in the Project: My Own Bed program where participants assemble bunk beds and install them in homes/apartments.
- **Work Ready Certificate**: Participant has demonstrated that they can show up on time ready to work. Has a positive attitude toward work; is a team player; able to follow directions; successfully completes tasks and assignments; and understands how to be successful in the work environment.
- **Paid Work Experience**: Complete up to 250 hours of paid work experience ending the time with a letter of recommendation from the Site Supervisor/Worksite Mentor.
- **Trade related Certificates**: Successfully completed the OSHA 10 Safety Training course, the Fall Protection Course; and has a Forklift Certificate.
- **Enrolled in a training program:** Either with an employer, a certified apprenticeship program, a community college, or other training provider. Attachment F is a list of post-secondary education training programs.
- **Full Time Employment** in a job paying $18.00 or more.

Program Dynamics: Once enrolled participants will be offered the opportunity to meet together once a week for four hours. Other mentoring, coaching, tutoring sessions will be individually scheduled. The various activities related to earning the various certificates will be offered as a part of the weekly meeting or separately depending on the circumstances. Enrollment in training and placement into employment will be scheduled by the case manager and job developer on a case-by-case basis.

b. Project Design Continued

Placement

Employer Involvement:

- The NSBIF works with about 600 energy, construction, utilities, and manufacturing employers. We try to contact each employer at least once every 30 days to determine if they are hiring and record the job titles. As of last week of the 337 employers contacted, 169 were not hiring and 168 were hiring at total of 563 positions.
- In addition to direct canvasing, we work closely with a variety of workforce agencies and community-based organizations to support job fairs and target employer hiring sessions. Employers find new employees based on the people we are able to recruit to these events. NSBIF staff follow up with employers and participants to determine success and next steps for those not selected.
- We also have a group of placement agencies that we work and refer participants to them for placement.

Job Placement Services:

- Direct placement: As described before in outreach, one of the recruitment tactics of this proposal is to identify people who are unemployed and under-employed and determine if they have experience and capability to move directly into a higher paying job as a result of being selected at a job fair or targeted employer hiring event.
- Work Experience to Placement: In some cases participants who have been placed in paid work experience will be hired by their work experience work-site host.
- Training & Work: In some cases people have to work and would like to go into a skills training program as well. Apprenticeship programs are ideal for this as the participant is paid to learn on the job and go to school. In other cases, a person will go to school and find a job that allows him/her to do so. Several training programs are offered on weekends and evenings to make it more convenient for participants.
- Placement into Employment as a capstone the program: Some participants will need some time to learn and develop before being placed into full time enrollment. For these participants, their case manager and the job developer will work with them to identify the right job through being selected.

Follow-up: Once a person is placed into unsubsidized work, follow-up services begin. The case manager will follow-up withing 30 days of placement. Employers and new hires are encouraged to contact the case manager for support prior to this time if there is a need (car breaks down, emergency childcare, etc.) Follow-up continues after 60 days and 90 days, 6 months, 12

months and 18 months. Note that the NSBIF has the funds to make the follow-up contacts to those placed into training and employment, at the 12 month and 18 month past the end of the projects.

c. Past Performance and Planned Outcomes

The North State Building Industry Foundation has been providing workforce development employment and training services since 2007 for the building industry in the Greater Sacramento area.

Our performance metrics for the programs that most closely align with the program we are proposing for Rancho Cordova are below. The North State Building Industry Association Foundation consistently meets or exceeds the goals set by the organizations we work with in the community.

	# Served Goal	# Total Served	# Placed Goal	# Total Placed	% Positive Exits
Program					
20-21 Program Year					
Project Heal*	75	146	75	79	105%
Out of School Youth	19	24	19	24	126%
TOT	12	13	12	13	108%
21-22 Program Year					
Out of School Youth	24	30	19	30	158%
TOT	50	117	25	50	200%
*Program was only held one year.					

- Strategy for monitoring and measuring performance and outcomes. NSBIF uses an HR Placement database to hold all contact information of possible participants. This information is collected at registration for events, website and other social media inquiries. We use Excel spreadsheets to control the progress of interested people to become applicants, and so on. A case management system is used to document all support services provided and contain case notes. We use an Excel file to track follow-up services.

- The following information will be collected and shared in the reports. Specifically,
  - Percentage of participants who started the program,
  - Percentage of participants completed training,
  - Percentage of participants completed the training and obtained a certificate or credential,

- Percentage of participants have entered employment "undefined" (6, 12 and 18 months after program completion),
- Percentage of participants who have entered into "training related" employment (6, 12 and 18 months after program completion)
- Number of apprenticeships or internships received (where applicable),
- Total jobs retained,
- Average salary increase,
- Percentage of participants employed,
- Percentage of participants employed in Rancho Cordova.

d. Partnerships:

- Describe the collaborative partnerships you will use to implement the program. As previously discussed, we will be working with different organizations and people at different phases of the project.
  - Outreach: The organizations listed on page 6 will be asked to share information about the program and advertise job fair events with their customers, parishioners, clients, participants, and members. We will also attend other community events to distribute information.
  - During the orientation, intake, and work readiness-life skills-job search preparation phases we will be holding these sessions at City Hall, the libraries, churches, and restaurants with meeting rooms, as needed and as space is available.
  - We will contact the appropriate agency or community organization to provide specific support services needs like childcare, mental health services, housing/shelter, etc.
  - Job Fairs and Targeted Employer events will be held in parking lots, and public buildings like the Hagan Community Center, the Rancho Cordova Library, City Hall, Churches like St. John Vienney or outdoors in parks.
  - Placement in Training and Employment: We will contact employers directly to refer participants and will contact the various training programs to enroll participants in training.
  - Follow-up: We will work with employers, faculty, and participants to assess retention and success in training and on the job.

e. Project Expected Timeline:

	Key Milestone	**Date/Time Duration**	**Key Pre-requisite/Milestone/Contingency**
1	Outreach : Get contact information for 200 18 to 30 year old unemployed-marginally employed residents	First 5 mos of the project	Assumes that we are able to contact 500 to 1000 eligible residents

2	Intake, assess & enroll 50 participants	First 5 mos of the project	Assumes that we are able to interest 50 of the 200 people in enrolling in the program.
3	Provide Work Readiness, Job Search, Life Skills, & Career Planning services to 35 participants	Starting in month 2 through month 12	Assumes we have been able to choose the right people and provide them with information and assistance that is of value to them to continue.
4	Place 50 participants into construction-energy related employment and/or training	Starting in month 3 through month 12	Assumes that the jobs are there for the people we have selected and that they are a good match for the jobs they have been hired.
5	Successfully contact 30 placed participants 18 months after placement	30 months after project begins 18 months after project finishes	Assumes we can maintain a viable way to contact people after they have left the program for 18 mos.

5. Sources and Uses of Funds

The following is a description of the NSBIF's income projected for FY22-23 for all Foundation projects. In the budget section there is a delineation of in-kind contributions for this proposal.

	FY22-23	Proposed/Committed	Evidence	Funding Source	Use of Funds
SETA OSY	$ 191,438	Committed	Existing Contract	SETA	Place 18-24 year-olds into training or employment
OSY Contributions Employer	$ 51,312	Committed	Money in Hand	Employers	Participant wages, food at meetings, etc
My Own Bed	$ 14,330	Committed	Money in Hand	Private Donations	Covers cost of assembling beds for kids
CRC - Kaiser	$ 13,000	Committed	Existing Contract		Recruit people to enroll in Energy, Construction, Utilitiy, and Business courses in 8 campuses in the region. Provide internships, place students into employment. Provide scholarships to ECU students in the Los Rios District.
Los Rios CCD	$ 12,223	Committed	Existing Contract	Strong Workforce Funds	
North Consortium	$ 343,452	Committed	Existing Contract	Strong Workforce Funds	
Sierra CC Construction BC	$ 20,000	Committed	PO In Hand	Strong Workforce Funds	Recruit people to enroll in Energy, Construction, Utilitiy, and Business courses and place graduates into employment
Sierra Social Media Campaign	$ 52,000	Committed	PO In Hand		
MWBE/License Contractors	$ 10,769	Committed	Money in Hand	Private Sector	Promote Women and Minorities to become Licensed contractors
Job Fair	$ 8,000	Proposed	Past Experience	Employers	Hiring event for participating employers
SMUD	$ 19,500	Committed	Existing Contract	SMUD	Placement of SMUD partner participants
City of Sacramento: SYDPF - Pathways to YES	$ 116,907	Committed	Existing Contract	General Fund	Provide career exploration, work readiness preparation, & internships to 16-18 year olds
SCUSD	$ 94,300	Committed	Existing Contract	State CTE Funds	Provide career exploration, work readiness preparation, & internships to 16-18 year olds
Admin Fund	$ 35,000	Proposed	Have operated program for five years	Employer Contributions	Summer Internship program to place 60 to 80 High School Juniors and Seniors (16-18 year olds) throughout Placer and Sacramento Counties
NSBIA Restricted	$ 58,000	Proposed			
Lennar Restricted	$ 163,000	Proposed			
Other Intern Income	$ 83,000	Proposed			
Harbor Freight Internship	$ 6,500	Committed	Existing Contract	HF Foundation	
Internship Subtotal	$ 345,500	Mixed			
HBI BuildStrong Academy	$ 120,000	Proposed	Draft Agreement	Private Donations	Recruit 150 students & place 75 graduates into employment
Grant Development	$ 28,129	Committed	$ in Hand	BIA	Pay grant writer to develop proposals.
PIPER Sponsorships	$ 25,000	Proposed	In process of getting Sponsorships	Business Organizations	Use funds where needs or build reserves.
C4BT Fundraiser	$ 5,900	Committed	$ in Hand	Event	Funds are used to absorb the cost of administrative overhead, policy development, fund raising, and partnership development
BIA restricited funding	$ 187,500	Committed	$ in Hand	BIA	
The New Home Company G	$ 53,735	Committed	$ in Hand	Event	
Poker Tournament Fundrais	$ 23,700	Committed	$ in Hand	Event	
Fundraiser Subtotal	$ 270,835				
FY 22-23 Totals	$ 1,736,695				

6. Conflict of Interest Statement

The NSBIF has a close interlocking relationship with the North State Building Industry Association (BIA) a 501(c)(6) Trade Association. The BIA has an ongoing relationship with the City in discussion about new home building projects, fees, and regulations related to home building. At present there is no issue that the BIA is dealing with the City that would present a Conflict of Interest with the NSBIF and its relation with the City.

7. Exceptions: There is no request for an exception at this time.

8. Supportive Information

A. IRS, Secretary of State 501(c)(3) forms.

B. NSBIF Audited Financial Reports for FY 20 and 21

C. Budget
   1. Project Budget
   2. Budget Narrative

D. City of Rancho Cordova Business License

E: Letters of Support
   E-1. Folsom Cordova Community Partnership
   E-2. Nimbus Landscaping

INTERNAL REVENUE SERVICE
P. O. BOX 2508
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date: DEC 19 2007

NORTH STATE BUILDING INDUSTRY
FOUNDATION
1536 EUREKA RD
ROSEVILLE, CA 95661

Employer Identification Number:
26-0772414
DLN:
17053320311027
Contact Person:
DALE T SCHABER ID# 31175
Contact Telephone Number:
(877) 829-5500
Accounting Period Ending:
December 31
Public Charity Status:
170(b)(1)(A)(vi)
Form 990 Required:
Yes
Effective Date of Exemption:
December 22, 2007
Contribution Deductibility:
Yes
Advance Ruling Ending Date:
December 31, 2011
Addendum Applies:
No

Dear Applicant:

We are pleased to inform you that upon review of your application for tax exempt status we have determined that you are exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code. Contributions to you are deductible under section 170 of the Code. You are also qualified to receive tax deductible bequests, devises, transfers or gifts under section 2055, 2106 or 2522 of the Code. Because this letter could help resolve any questions regarding your exempt status, you should keep it in your permanent records.

Organizations exempt under section 501(c)(3) of the Code are further classified as either public charities or private foundations. During your advance ruling period, you will be treated as a public charity. Your advance ruling period begins with the effective date of your exemption and ends with advance ruling ending date shown in the heading of the letter.

Shortly before the end of your advance ruling period, we will send you Form 8734, Support Schedule for Advance Ruling Period. You will have 90 days after the end of your advance ruling period to return the completed form. We will then notify you, in writing, about your public charity status.

Please see enclosed Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, for some helpful information about your responsibilities as an exempt organization.

Letter 1045 (DO/CG)

NORTH STATE BUILDING INDUSTRY

Sincerely,

Robert Choi

Robert Choi
Director, Exempt Organizations
Rulings and Agreements

Enclosures: Publication 4221-PC
Statute Extension

Letter 1045 (DO/CG)

Part X Public Charity Status *(Continued)*

e 509(a)(4)—an organization organized and operated exclusively for testing for public safety. ☐

f 509(a)(1) and 170(b)(1)(A)(iv)—an organization operated for the benefit of a college or university that is owned or operated by a governmental unit. ☐

g 509(a)(1) and 170(b)(1)(A)(vi)—an organization that receives a substantial part of its financial support in the form of contributions from publicly supported organizations, from a governmental unit, or from the general public. ☐

h 509(a)(2)—an organization that normally receives not more than one-third of its financial support from gross **investment income** and receives more than one-third of its financial support from contributions, membership fees, and gross receipts from activities related to its exempt functions (subject to certain exceptions). ☐

i A publicly supported organization, but unsure if it is described in 5g or 5h. The organization would like the IRS to decide the correct status. ☑

6 If you checked box g, h, or i in question 5 above, you must request either an **advance** or a **definitive ruling** by selecting one of the boxes below. Refer to the instructions to determine which type of ruling you are eligible to receive.

a **Request for Advance Ruling:** By checking this box and signing the consent, pursuant to section 6501(c)(4) of the Code you request an advance ruling and agree to extend the statute of limitations on the assessment of excise tax under section 4940 of the Code. The tax will apply only if you do not establish public support status at the end of the 5-year advance ruling period. The assessment period will be extended for the 5 advance ruling years to 8 years, 4 months, and 15 days beyond the end of the first year. You have the right to refuse or limit the extension to a mutually agreed-upon period of time or issue(s). Publication 1035, *Extending the Tax Assessment Period,* provides a more detailed explanation of your rights and the consequences of the choices you make. You may obtain Publication 1035 free of charge from the IRS web site at *www.irs.gov* or by calling toll-free 1-800-829-3676. Signing this consent will not deprive you of any appeal rights to which you would otherwise be entitled. If you decide not to extend the statute of limitations, you are not eligible for an advance ruling. ☑

Consent Fixing Period of Limitations Upon Assessment of Tax Under Section 4940 of the Internal Revenue Code

For Organization

(Signature of Officer, Director, Trustee, or other authorized official)

John Orr
(Type or print name of signer)

11-12-07
(Date)

Officer
(Type or print title or authority of signer)

For IRS Use Only

IRS Director, Exempt Organizations

DEC 19 2007
(Date)

b **Request for Definitive Ruling:** Check this box if you have completed one tax year of at least 8 full months and you are requesting a definitive ruling. To confirm your public support status, answer line 6b(i) if you checked box g in line 5 above. Answer line 6b(ii) if you checked box h in line 5 above. If you checked box i in line 5 above, answer both lines 6b(i) and (ii). ☐

(i) **(a)** Enter 2% of line 8, column (e) on Part IX-A. Statement of Revenues and Expenses. _____

(b) Attach a list showing the name and amount contributed by each person, company, or organization whose gifts totaled more than the 2% amount. If the answer is "None," check this box. ☐

(ii) **(a)** For each year amounts are included on lines 1, 2, and 9 of Part IX-A. Statement of Revenues and Expenses, attach a list showing the name of and amount received from each **disqualified person.** If the answer is "None," check this box. ☐

(b) For each year amounts are included on line 9 of Part IX-A. Statement of Revenues and Expenses, attach a list showing the name of and amount received from each payer, other than a disqualified person, whose payments were more than the larger of (1) 1% of line 10, Part IX-A. Statement of Revenues and Expenses, or (2) $5,000. If the answer is "None," check this box. ☐

7 Did you receive any unusual grants during any of the years shown on Part IX-A. Statement of Revenues and Expenses? If "Yes," attach a list including the name of the contributor, the date and amount of the grant, a brief description of the grant, and explain why it is unusual. ☐ **Yes** ☑ **No**

NORTH STATE BUILDING INDUSTRY ASSOCIATION AND AFFILIATES

CONSOLIDATED FINANCIAL STATEMENTS
WITH INDEPENDENT ACCOUNTANT'S
REVIEW REPORT

YEARS ENDED
DECEMBER 31, 2021 (REVIEWED)
AND 2020 (AUDITED)

INDEPENDENT ACCOUNTANT'S REVIEW REPORT

The Board of Directors
North State Building Industry Association
Roseville, California

We have reviewed the accompanying consolidated financial statements of the North State Building Industry Association and Affiliates (Association), which comprise the consolidated statement of financial position as of December 31, 2021, and the related consolidated statements of activities, functional expenses and cash flows for the year then ended, and the related notes to the consolidated financial statements. A review includes primarily applying analytical procedures to management's financial data and making inquiries of entity management. A review is substantially less in scope than an audit, the objective of which is the expression of an opinion regarding the consolidated financial statements as a whole. Accordingly, we do not express such an opinion.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement whether due to fraud or error.

Accountant's Responsibility

Our responsibility is to conduct the review engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the AICPA. Those standards require us to perform procedures to obtain limited assurance as a basis for reporting whether we are aware of any material modifications that should be made to the consolidated financial statements for them to be in accordance with accounting principles generally accepted in the United States of America. We believe that the results of our procedures provide a reasonable basis for our conclusion.

We are required to be independent of the Association and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements related to our review.

Accountant's Conclusion

Based on our review, we are not aware of any material modifications that should be made to the accompanying consolidated financial statements in order for them to be in accordance with accounting principles generally accepted in the United States of America.

2880 Gateway Oaks Drive, Suite 100, Sacramento, CA 95833
Phone 916.646.6464 • Fax 916.929.6836 • GilbertCPA.com

Supplementary Information

The 2021 supplementary information included on pages 17 and 19 are presented for the purpose of additional analysis and is not a required part of the basic consolidated financial statements. The information is the representation of management. We have reviewed the information and, based on our review, we are not aware of any material modifications that should be made to the information in order for it to be in accordance with accounting principles generally accepted in the United States of America. We have not audited the information and, accordingly, do not express an opinion on such information.

Report on 2020 Consolidated Financial Statements and Supplementary Information

The 2020 consolidated financial statements, excluding Shelter Providers of Sacramento, Inc., d.b.a HomeAid Sacramento (HomeAid), were audited by us, and we expressed an unmodified opinion on them in our report dated April 29, 2021. In addition, the 2020 supplementary information, excluding HomeAid, contained on pages 18 and 20 was subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. Our report stated that the information was fairly stated in all material respects in relation to the consolidated financial statements or on the supplementary information since April 29, 2021.

We did not audit the 2020 financial statements of HomeAid, an affiliated, consolidated nonprofit organization controlled by the North State Building Industry Association, which statements reflected total assets constituting 31% and total revenues constituting 22% of consolidated totals as of and for the year ended December 31, 2020. Those statements were audited by other accountants, whose report had been furnished to us, and our conclusion, insofar as it relates to the amounts included for HomeAid, was based solely on the report of the other accountants.

Gilbert CPAs

GILBERT CPAs
Sacramento, California

April 29, 2022

NORTH STATE BUILDING INDUSTRY ASSOCIATION AND AFFILIATES

CONSOLIDATING STATEMENT OF FINANCIAL POSITION
DECEMBER 31, 2021

	BIA	Home Aid	NSBIF	BIA PAC	Consolidated
ASSETS					
CURRENT ASSETS:					
Cash and cash equivalents	$ 213,354	$ 921,015	$ 281,678	$ 238,736	$ 1,654,783
Accounts and grants receivable, net	57,301	7,800	53,617		118,718
Prepaid expenses and deposits	49,097	1,155	2,899		53,151
Total current assets	319,752	929,970	338,194	238,736	1,826,652
PROPERTY AND EQUIPMENT, net	15,451	7,038	1,904		24,393
INVESTMENTS	3,192,390	1,015,107			4,207,497
TOTAL ASSETS	$ 3,527,593	$ 1,952,115	$ 340,098	$ 238,736	$ 6,058,542
LIABILITIES AND NET ASSETS					
CURRENT LIABILITIES:					
Accounts payable	$ 78,362	$ 37,128	$ 34,236	$ 858	$ 150,584
Accrued expenses	103,107	30,442			133,549
Economic injury disaster loan					
Deferred revenue	451,036				451,036
Refundable advances	25,000		122,668		147,668
TOTAL LIABILITIES	657,505	67,570	156,904	858	882,837
NET ASSETS:					
Without donor restrictions	2,870,088	1,543,236	183,194	237,878	4,834,396
With donor restrictions		341,309			341,309
Total net assets	2,870,088	1,884,545	183,194	237,878	5,175,705
TOTAL LIABILITIES AND NET ASSETS	$ 3,527,593	$ 1,952,115	$ 340,098	$ 238,736	$ 6,058,542

NORTH STATE BUILDING INDUSTRY ASSOCIATION AND AFFILIATES

CONSOLIDATING STATEMENT OF FINANCIAL POSITION
DECEMBER 31, 2020

	BIA	Home Aid	NSBIF	BIA PAC	Consolidated
ASSETS					
CURRENT ASSETS:					
Cash and cash equivalents	$ 450,342	$ 629,223	$ 112,811	$ 75,440	$ 1,267,816
Accounts and grants receivable, net	60,500		25,487		85,987
Prepaid expenses and deposits	20,976	3,390	5,364		29,730
Total current assets	531,818	632,613	143,662	75,440	1,383,533
PROPERTY AND EQUIPMENT, net	24,866	450	500		25,816
INVESTMENTS	2,610,973	892,822			3,503,795
TOTAL ASSETS	$ 3,167,657	$ 1,525,885	$ 144,162	$ 75,440	$ 4,913,144
LIABILITIES AND NET ASSETS					
CURRENT LIABILITIES:					
Accounts payable	$ 44,698	$ 5,204	$ 34,633	$ 600	$ 85,135
Accrued expenses	89,890	15,234			105,124
Economic injury disaster loan	150,000				150,000
Deferred revenue	290,651				290,651
Refundable advances			51,600		51,600
TOTAL LIABILITIES	575,239	20,438	86,233	600	682,510
NET ASSETS:					
Without donor restrictions	2,592,418	1,161,771	57,929	74,840	3,886,958
With donor restrictions		343,676			343,676
Total net assets	2,592,418	1,505,447	57,929	74,840	4,230,634
TOTAL LIABILITIES AND NET ASSETS	$ 3,167,657	$ 1,525,885	$ 144,162	$ 75,440	$ 4,913,144

NORTH STATE BUILDING INDUSTRY ASSOCIATION AND AFFILIATES

CONSOLIDATING STATEMENT OF ACTIVITIES
YEAR ENDED DECEMBER 31, 2021

	BIA	Home Aid	NSBIF	BIA PAC	Eliminations	Consolidated
NET ASSETS WITHOUT DONOR RESTRICTIONS:						
REVENUE:						
Grant and fundraising activity		$ 993,056	$ 766,843			$ 1,759,899
Less donated materials and labor for HomeAid		(583,084)				(583,084)
Net grants and contributions		409,972	766,843			1,176,815
Member dues and assessment fees	$ 1,345,938					1,345,938
Events	660,519	385,419	61,006			1,106,944
Interest and investment income	222,156	57,149				279,305
Political contributions				$ 189,200		189,200
Sponsorships			42,930			42,930
Rental income	23,584	28,710				52,294
Other income	13,760		10,442		$ (15,331)	8,871
Net assets released from restrictions		79,812				79,812
Total revenue	2,265,957	961,062	881,221	189,200	(15,331)	4,282,109
EXPENSES:						
Program services:						
Governmental and public affairs	764,961			26,162		791,123
Educational programs	5,831		686,491			692,322
Events and membership services	643,589					643,589
Charitable projects		140,156	15,510			155,666
Total program services	1,414,381	140,156	702,001	26,162		2,282,700
Supporting services:						
General administration	742,304	249,396	85,122		(15,331)	1,061,491
Fundraising		237,722	41,286			279,008
Total expenses	2,156,685	627,274	828,409	26,162	(15,331)	3,623,199
INCOME FROM OPERATIONS	109,272	333,788	52,812	163,038		658,910
GAIN ON FORGIVENESS OF PAYCHECK PROTECTION PROGRAM LOAN	168,398	47,677	72,453			288,528
INCREASE IN NET ASSETS WITHOUT DONOR RESTRICTIONS	277,670	381,465	125,265	163,038		947,438
NET ASSETS WITH DONOR RESTRICTIONS:						
Endowment contributions		33,280				33,280
Unrealized gain on investments		32,165				32,165
Grants and contributions		12,000				12,000
Net assets released from restrictions		(79,812)				(79,812)
DECREASE IN NET ASSETS WITH DONOR RESTRICTIONS		(2,367)				(2,367)
INCREASE IN NET ASSETS	277,670	379,098	125,265	163,038		945,071
NET ASSETS, beginning of year	2,592,418	1,505,447	57,929	74,840		4,230,634
NET ASSETS, end of year	$ 2,870,088	$ 1,884,545	$ 183,194	$ 237,878	$	$ 5,175,705

NORTH STATE BUILDING INDUSTRY ASSOCIATION AND AFFILIATES

CONSOLIDATING STATEMENT OF ACTIVITIES
YEAR ENDED DECEMBER 31, 2020

	BIA	Home Aid	NSBIF	BIA PAC	Eliminations	Consolidated
NET ASSETS WITHOUT DONOR RESTRICTIONS:						
REVENUE:						
Grant and fundraising activity		$ 615,640	$ 595,884			$ 1,211,524
Less donated materials and labor for HomeAid		(128,310)				(128,310)
Net grants and contributions		487,330	595,884			1,083,214
Member dues and assessment fees	$ 1,274,652					1,274,652
Events	610,971	228,721	5,443			845,135
Interest and investment income	253,157	62,794				315,951
Political contributions				$ 230,875		230,875
Sponsorships			12,700			12,700
Rental income	24,420					24,420
Other income	(46,139)				$ 65,886	19,747
Net assets released from restrictions		86,834				86,834
Total revenue	2,117,061	865,679	614,027	230,875	65,886	3,893,528
EXPENSES:						
Program services:						
Governmental and public affairs	738,507			380,564		1,119,071
Educational programs	4,184		453,875		61,261	519,320
Events and membership services	664,638		13,562			678,200
Charitable projects		221,743	7,647			229,390
Total program services	1,407,329	221,743	475,084	380,564	61,261	2,545,981
Supporting services:						
General administration	469,190	202,642	44,798		4,625	721,255
Fundraising		173,703	87,042			260,745
Total expenses	1,876,519	598,088	606,924	380,564	65,886	3,527,981
INCOME (LOSS) FROM OPERATIONS	240,542	267,591	7,103	(149,689)		365,547
GAIN ON FORGIVENESS OF PAYCHECK PROTECTION PROGRAM LOAN		40,000	89,845			129,845
INCREASE (DECREASE) IN NET ASSETS WITHOUT DONOR RESTRICTIONS	240,542	307,591	96,948	(149,689)		495,392
NET ASSETS WITH DONOR RESTRICTIONS:						
Endowment contributions		22,850				22,850
Unrealized gain on investments		26,989				26,989
Net assets released from restrictions		(86,834)				(86,834)
DECREASE IN NET ASSETS WITH DONOR RESTRICTIONS		(36,995)				(36,995)
INCREASE (DECREASE) IN NET ASSETS	240,542	270,596	96,948	(149,689)		458,397
NET ASSETS, beginning of year	2,351,876	1,234,851	(39,019)	224,529		3,772,237
NET ASSETS, end of year	$ 2,592,418	$ 1,505,447	$ 57,929	$ 74,840	$	$ 4,230,634

NORTH STATE BUILDING INDUSTRY ASSOCIATION FOUNDATION

North State Building Industry Foundation

Proposed Project Budget
&
Narrative

WORKFORCE INVESTMENT ACT (WIA)
NEG

BUDGET AND BUDGET NARRATIVE

Subgrantee Name North State Building Industry Foundati
Street Address: 1536 Eureka Road
City Roseville, CA 95661
Program Contact: Jennifer Poff phone: 916.751.2760
Fiscal Contact Person: Jeff Klein phone: 916.751.2775
BUDGET PERIOD: To be determined

BUDGET SUMMARY - COST REIMBURSEMENT				
TYPE OF COST	RC City SHARE	Inkind	Totals	% of total
A. Personnel	$ 204,143	$ -	$ 204,143	75%
B1. Fixed Asset Purchases	$ -	$ -		
B2. Other Equipment Costs	$ -	$ -		0%
C. Other Costs	$ 16,041	$ 600	$ 16,641	6%
D1. Wages/Compensation	$ 18,750	$ 56,250	$ 75,000	7%
D2. Participant FICA	$ 2,869	$ 7,575	$ 10,444	1%
D3. Worker's Compensation	$ 5,050	$ 4,303	$ 9,353	2%
D4. OJT Employer Reimbursement	$ -	$ -	$ -	0%
D5. Other Participant Costs	$ 7,725	$ 2,000	$ 9,725	3%
D6. Supportive Services	$ 16,650	$ 3,600	$ 20,250	6%
Total Cost	**$ 271,228**	**$ 74,328**	**$ 345,556**	
	$ 5,425	Cost per person placed		

A. PERSONNEL COSTS 1. Job Title	Dates From-To	Full Salary Per Month	Number of Months X	RC City %	Costs For This Program RC City	 Non- RC City	 Totals
1. Project Manager (NSBIF Executive Director)	To Be Determined	7,000	12	25%	21,000	-	21,000
2, Director, Young Adult Services	To Be Determined	4,853	12	45%	26,206		26,206
3. Case Mananger	To Be Determined	3,467	12	50%	20,802		20,802
3. Case Mananger	To Be Determined	3,250	12	80%	31,200		31,200
4. Job Developer	To Be Determined	5,377	12	60%	38,714		38,714
5. Technical Advisor	To Be Determined	8,387	12	15%	15,097		15,097
6. CFO/Controller	To Be Determined	6,436	12	10%	7,723		7,723
					-		-
					-		-
					-		-
					-		-
					-		-
					-		-
					-		-
					-		-
					-		-
					-		-
Total Salaries					160,742	-	160,742
2. Total Fringe Benefits (27% of Wages)					$ 43,400	$ -	43,400
Total Personnel Costs Salaries + Fringe Benefits					204,143	-	204,143

C. OTHER COSTS 1. Direct	Full Cost Information			Costs For This Program		
Facility: Address:	Monthly Cost	# of Months	RC City	RC City	Non RC City	Totals
Non-Owned: _____Rent ___X Lease	$ -		0%	$ -		$ -
Owned: Depreciation Use Allowance	$ -		0%	$ -		$ -
Utilities (Included)	$ -		0%	$ -		$ -
Telephone & Internet	$ -		0%	$ -		$ -
1. Combined Insurance, Rent, Utilities, Equipment Costs	$ 697	12.0	100%	$ 8,361		$ 8,361
2. Marketing Materials/Bling	$ 200	12.0	100%	$ 2,400		$ 2,400
3. Office Supplies	$ 50	12.0	100%	$ 600		$ 600
Insurance: Fidelity/Depositors' Forgery	$ -		0%	$ -		$ -
Property	$ -		0%	$ -		$ -
General Liability	$ -		0%	$ -		$ -
Vehicle Liability	$ -		0%	$ -		$ -
Others	$ -		0%	$ -		$ -
4. Travel: Local Mileage 500 mis/mo @ $.58/mi	$ 290	12.0	100%	$ 3,480		$ 3,480
5. Other: Training and Conference Tuitions	$ 100	12.0	50%	$ 600	$ 600	$ 1,200
Subcontracts:	$ -		0%	$ -		$ -
Others:				$ -		$ -
Total Direct Costs				$ 15,441	$ 600	$ 16,041
2. *Indirect Costs - Approved Rate: % x Direct Costs of $	0.00%	X	$ 15,441	$ -	$ -	$ -
			Total Other Costs	$ 15,441	$ 600	$ 16,041

D. DIRECT PARTICIPANT COSTS Type/Cost Information	COSTS FOR THIS PROGRAM RC City	Non-RC City (Inkind)	TOTAL
1. Work Experience: Partially Subsidized 10 participant x $ 15.00/Hour x 250 hours =	$ 18,750	$ 18,750	$ 37,500
1a. Work Experience Unsubsidized 15 participants x $15.00/Hour x 250 hours =		$ 56,250	$ 56,250
Worker's Compensation	$ 5,050	$ 7,575	$ 12,625
2. Participant FICA (Employer's Contribution only)	$ 2,869	$ 4,303	$ 7,172
6.2% Social Security tax and the 1.45% Medicare tax = 7.65% Totals	$ 26,669	$ 79,303	$ 105,972
3. Other Participant Costs			
Drivers Training: Getting a License 5 X $900	$ 4,500		$ 4,500
Training Materials for Work Readiness, Life Skills, Job Search 35*$35	$ 1,225	$ -	$ 1,225
Other: Field Trips, enrollment in training program,	$ 2,000	$ 2,000	
Total Other Participant Costs	$ 7,725	$ 2,000	$ 9,725
4. Supportive Services			
Clothing, Safety Equipment, Boots & Tools 20 people @ $150 per person	$ 3,000		$ 3,000
Child Care/Transportation (50 people @ 125 per person)	$ 6,250		$ 6,250
Training & GED Fees: 20 people @ $300	$ 2,400	$ 3,600	$ 6,000
Incentives/Ancillary/Other Supports: 50 participants @ $100 ea	$ 5,000		$ 5,000
Total Supportive Services	$ 16,650	$ 3,600	$ 20,250
5. OJT Employer Reimbursement Participants x /Hour x hrs x % = Average Hours of Training			$ -
6. Off-the-Shelf (Occupational Skills Training) or Tuition Payments (MUST COMPLETE PAGE 6) _____x $_____ = Slots Average Tuition Per Slot			$ -
Total Direct Participant Costs (1+2+3+4+5+6)	$ 51,044	$ 84,903	$ 135,947

1. Note that we expect employers to contribute to the Work Experience. Participants will be Foundation Employees and we will cover the FICA and Worker's comp
2. Cost for Field Trips is transportation and we rent Paratransit Vehicles & Drivers for $90 @ hour
3. Enrollment in training programs. In kind reflects the scholarships and other sources of funds to enroll participants.
4. Support Services. All figures are averages and do not reflect what will actually happen as costs vary based upon need and nature of subsidy.

CITY OF RANCHO CORDOVA
2729 Prospect Park Drive • Rancho Cordova, CA 95670 • (916) 851-8737

BUSINESS LICENSE
License not transferable • Not valid at any other location • Post in conspicuous place

EFFECTIVE DATE	EXPIRATION DATE	LICENSE NUMBER
10/18/2022	**10/18/2023**	**OOA-002982**

BUSINESS TYPE: **81: OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)**

CONDITIONS
- **COMPLY WITH RANCHO CORDOVA ORDINANCES, CODES & REGULATIONS**

OWNER(S)
NORTH STATE BUILDING INDUSTRY ASSOCIATION

NORTH STATE BUILDING INDUSTRY ASSOCIATION FOUNDATION
1536 EUREKA RD
ROSEVILLE, CA 95661

LOCATION
1536 EUREKA RD
ROSEVILLE, CA 95661

This license is issued without verification that the holder is subject or exempted from licensing by the state, county, federal government, or any other government agency.

P: 916.361.8684 F: 916.361.8683 www.TheFCCP.org

FOLSOM CORDOVA Community Partnership

10665 Coloma Rd. Suite 200 · Rancho Cordova, CA 95670

October 19, 2022

Amanda Norton
Economic Development Manager
City of Rancho Cordova
Economic Development
2729 Prospect Park Drive Rancho Cordova, CA 95670

Re: North State Building Industry Foundation (NSBIF) young adult workforce proposal.

The Folsom Cordova Community Partnership (FCCP) supports NSBIF's proposal to recruit young adults living in the City of Rancho Cordova and work with them to receive the training and employment in well-paying jobs in the Energy, Construction, Utilities, and Manufacturing industries.

We envision a cross-referral collaborative between FCCP and NSBIF, in which NSBIF provides skilled training opportunities and FCCP provides case management and wraparound services where needed for Rancho Cordova residents.

The key to economic growth is that all citizens have the opportunity for well-paying jobs. NSBIF has the expertise to provide workforce training in Energy, Construction, Utilities, and Manufacturing as well as relationships with employers ready to hire in these industries.

Please consider awarding the NSBIF a contract to help Rancho Cordova's young adults find a meaningful career in the trades industry. For additional information, feel free to contact me at: RSanger@theFCCP.org or (916) 361.8684 x290.

Sincerely,

Robert Sanger
Executive Director
RSanger@theFCCP.org
(916) 361.8684 x290

October 19th 2022

Amanda Norton
Economic Development Manager
City of Rancho Cordova
Economic Development
2729 Prospect Park Drive Rancho Cordova, CA 95670

Re: North State Building Industry Foundation (NSBIF) young adult workforce proposal.

We at Nimbus Landscape Materials support the North State Building Industry Foundation's proposal to recruit young adults living in the City of Rancho Cordova and work with them to receive the training and employment in well-paying jobs in the Energy, Construction, Utilities and Manufacturing industries.

The key to economic growth is that all citizens have the opportunity for well-paying jobs. NSBIF is in touch with employers with good jobs.

Please consider awarding the NSBIF a contract to help Rancho Cordova's young adults find a meaningful career.

Sincerely,

Rachele Glavaris
Nimbus Landscape Materials
12137 Folsom Blvd
Rancho Cordova CA 95742
Office 916-985-2275

Construction Related Post-Secondary Programs

Find this with live links at https://www.biaworkforce.com/careers.html

Career Technical Education At Regional Community Colleges

What is Career Technical Education?

Career Technical Education (CTE) is a term for educational programs that specialize in the skilled trades, applied arts and sciences, modern technologies, and career preparation. A key element of these programs is how coursework integrates academic knowledge with technical and career readiness skills, preparing students with the skills they need to launch into a career.

CTE Programs help students apply the abstract concepts and theories from academic coursework to real world situations, providing them with practical, and relevant skills that will make them more employable upon graduation. CTE programs often provide students with opportunities to gain work experience through internships, work-based learning, and industry-certification opportunities. CTE offers a wide range of learning experiences spanning many different career tracks, including skilled trades such as, automotive technology, construction, welding, and solar technology.

Butte College

Construction Laborer
Cabinetmaker
Electrician
Construction Supervisor
Heavy Equipment Operation
Building Inspection Technology
Civil Engineering Technology
Drafting and CAD Technology
Welding Technology

Folsom Lake College

Waste/Wastewater Management

American River College

Design/Engineering Technology
Horticulture & Landscape Design
Solar Energy Systems Design, Estimation, and Sales Certificate
Welding Technology

Cosumnes River College

Architectural Design Technology
Architecture
Architectural Technology Certificate
Automotive Mechanics Technology
Automotive, Construction and Design
Building Inspection Technology A.S. Degree
Building Inspection Technology Certificate
Construction A.S. Degree
Construction Certificate
Construction Pre-apprenticeship Certificate
Construction Management A.S Degree
Construction Management Certificate
Engineering
Green Buildings Certificate
Horticulture
Horticulture: Sustainable Irrigation and Water Management Certificate
Horticulture: Sustainable Landscape A.S. Degree
Horticulture: Sustainable Landscape Design Certificate
Interior Building Architecture A.S. Degree
Interior Building Architecture Certificate
Solar Installer Certificate
Automotive, Construction and Design Technology
Welding Technology A.S. Degree
Welding Technology Certificate

Sacramento City College

Energy Auditing
Engineering Design Technology
Civil Engineering Commercial Building & Energy Auditing Specialist
HVAC Systems Design
Mechanical/Electrical Technology, Mechanical Systems Technology & HVAC/R
Industrial Maintenance Mechanic Technician

For more information, visit:
BIAWorkforce.com or contact us at:
workforce@northstatebia.org

BIA FOUNDATION

Construction Related Post-Secondary Programs

Sierra College
Advanced Manufacturing
Construction Management
Construction Fundamentals Course
Engineering Design Technology
Drafting and Engineering Support
Engineering
Mechatronics
Welding Technology

Yuba College
Welding Technology
Drafting Technology

CSU Chico
Construction Management
Concrete Industry Management

CSU Sacramento
Water Technology
Construction Management

UC Davis
Energy Science and Technology
Construction Engineering and Management

Other Construction and Green Job Related training programs
California Conservation Corps
Northern California Construction Training
Green Tech Education & Employment Programs
Grid Alternatives
People Working Together
Sacramento Regional Conservation Corps

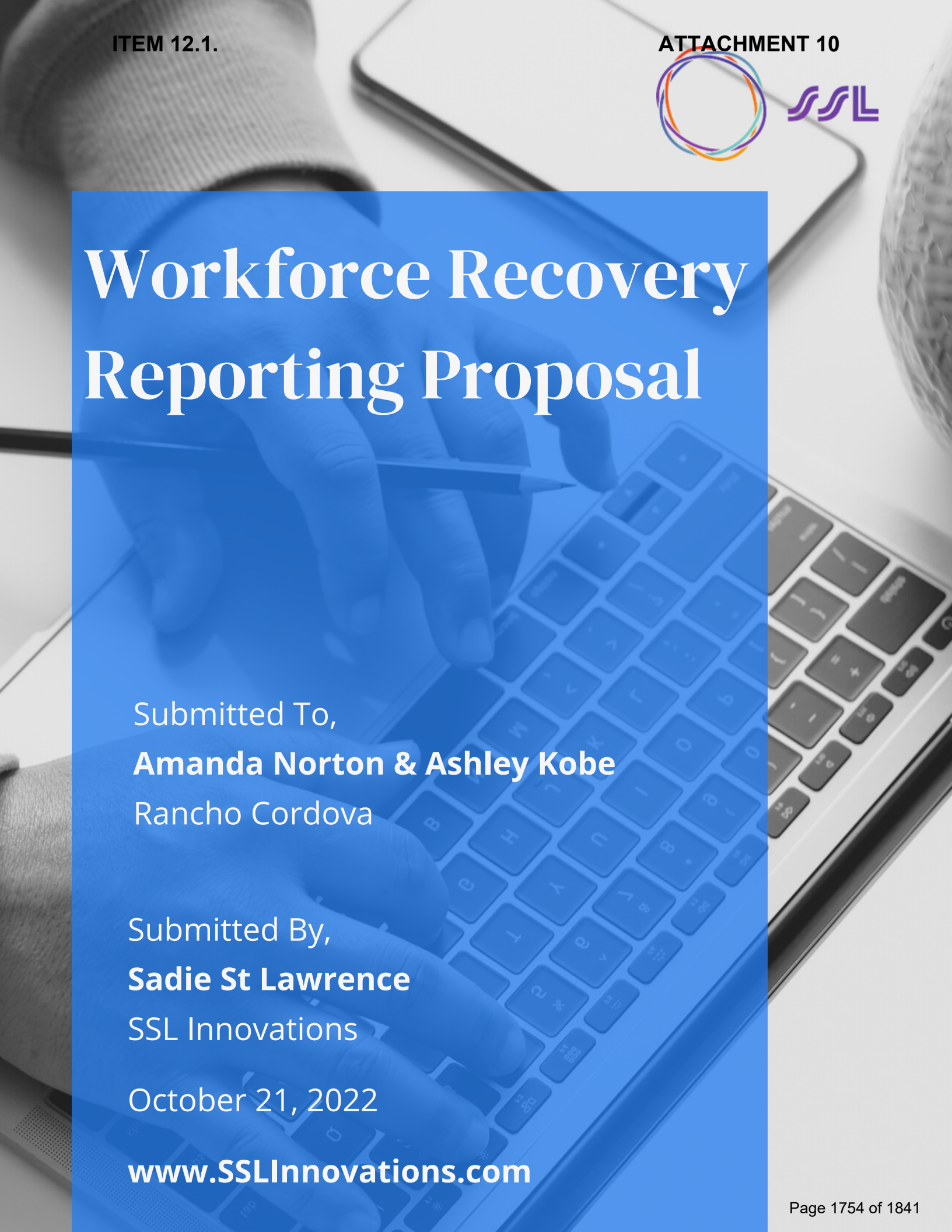
Job Corps
Building Construction Technology
Carpentry
Cement/Masonry
Heavy Equipment Mechanic
Plastering/Drywall

Charles Jones Career & Education Center
Welding, Forklift Operation and Manufacturing

Apprenticeship Programs
ABC NorCal
Acoustical Installers Apprenticeship
Boilermaker Apprenticeship
Bricklayer & Stonesman Apprenticeship
Carpenter Apprenticeship
Carpet, Linoleum, & Soft Tile Worker Apprenticeship
Cement Mason Apprenticeship
Construction Inspector Apprenticeship
Drywall Finisher Apprenticeship
Drywall/Lather Apprenticeship
Western Electrical Contractors Association
International Brotherhood of Electrical Workers
PHCC (Plumbing Heating Cooling Contractors Association
Glazier & Glass Worker Apprenticeship
Hardwood Floor Layer Apprenticeship
Heat & Frost Insulators Apprenticeship
Insulator Apprenticeship
Ironworker (Field) Apprenticeship
Marble Finisher Apprenticeship
Marble Mason/Setter Apprenticeship
Millwright Apprenticeship
Painter Apprenticeship
Pile Driver Apprenticeship
Plasterer Apprenticeship
Plumber/Pipefitter Apprenticeship
Residential Sheet Metal Installer Apprenticeship
Roofer/Waterproofer Apprenticeship
Scaffold Erectors Apprenticeship
Sheet Metal Worker/HVAC Apprenticeship
Shingler Apprenticeship
Surveyor Apprenticeship
Teamster Construction Truck Driver Apprenticeship
Terrazzo Finisher Apprenticeship
Terrazzo Mechanic Apprenticeship
Tile Finisher Apprenticeship
Tile Layer/Setter Apprenticeship

For more information, visit: BIAWorkforce.com or contact us at: workforce@northstatebia.org

BIA FOUNDATION



Workforce Recovery Reporting Proposal

Submitted To,

Amanda Norton & Ashley Kobe

Rancho Cordova

Submitted By,

Sadie St Lawrence

SSL Innovations

October 21, 2022

www.SSLInnovations.com

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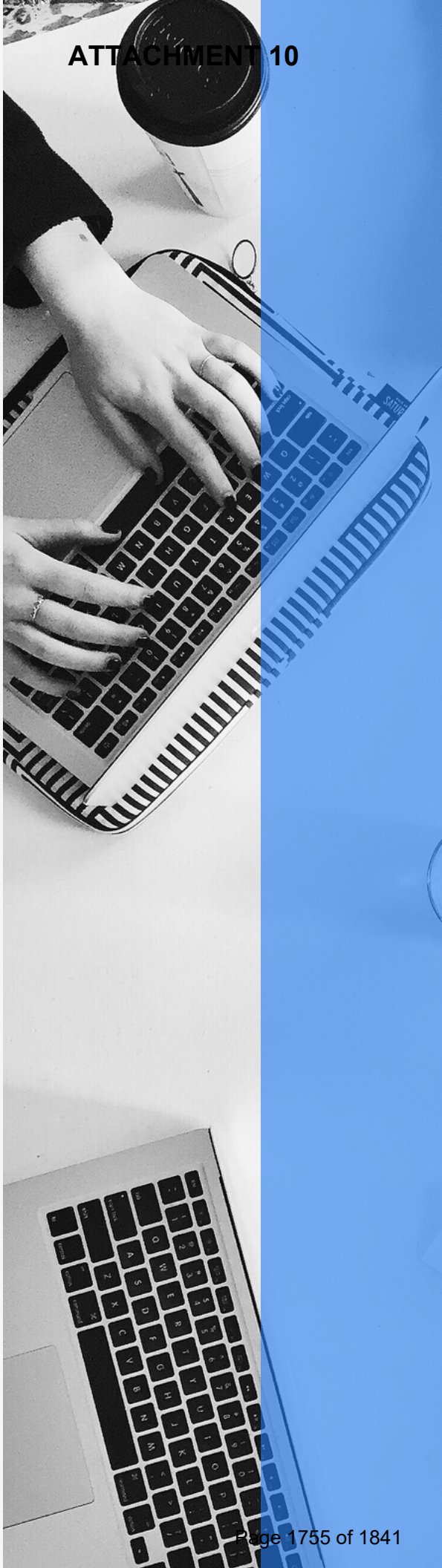

Executive Summary

The City of Rancho Cordova looks to administer a variety of workforce recovery programs to ensure their residents have the skills needed to gain employment and gain a sustainable living wage in an ever-evolving job landscape. Rancho Cordova will contract a variety of service provides to administer these upskilling and reskilling programs. Therefore, Rancho Cordova seeks to provide benchmarking, standardize measurement and reporting to be able to communicate the success and impact of the workforce recovery programs to City Council.

Objectives

Benchmark Success

Define and benchmark success against national programs to keep service providers accountable and clearly articulate the impact of the programs.

Standardize Measurement

Standardize measurement for all service providers to easily provide cross analysis against the programs, and hold service providers accountable to benchmarks.

Reporting

Provide reports and contextual insights for Rancho Cordova to use to easily show, and communicate to City Council in regard to who has been served, how the programs are tracking to benchmarks, overall success, and next steps recommendations.

Needs

Define Success

Prior to launching the programs, benchmarks and success criteria need be defined to communicate goals with the service providers and City Council.

Program Comparison

Multiple programs collect a variety of data at different times leading to inconsistences in the reporting and difficulty communicating the impact.

Accountability

Hold service providers accountable to the goals and provide a standardized outcome.

Communicate Impact

Easily report on all programs with detailed analysis to communicate success, recommendations, and next steps to City Council.

Our Recommendation

Benchmark Success

SSL Innovations will meet with the Economic Development team to discuss goals for the programs, timeline, and provide resources on national programs to develop standardized benchmarks for the Workforce Recovery Programs.

Standardize Measurement

SSL Innovation will create a standardize reporting method for all programs through surveys based on the benchmark criteria set. These survey's will be sent out on behalf of Rancho Cordova and Rancho Cordova will own and have access to all data.

Reporting

SSL Innovations will provide the analysis of the survey's and compare these programs to the benchmarks to easily communicate and report on the impact. Along with providing cross analysis for deeper insights and recommendations.

Scope & Cost

WHAT'S INCLUDED

Success Criteria & Benchmarking

- Define Benchmark Success Criteria
- Outline Reporting Needs

Survey Development (7 Surveys)

- Application Survey
- Midpoint Check-in Survey
- Program Participant Dropout Survey
- Program Completion Survey
- Hiring Reporting Survey (6-Months)
- Hiring Reporting Survey (12-Months)
- Hiring Reporting Survey (18-Months)

Analysis & Reporting (5 Reports)

- Participant Report
- Program Completion Report
- Hiring Report (6-Months)
- Hiring Report (12-Months)
- Hiring Reporting (18-Months)

COST

Service	Cost
2022 Survey Development & Reporting • Application Survey Development • Participant Dropout Survey Development • Participant Report	**$95,000**
2023 Year Survey Development & Reporting • Midpoint Survey Development • Program Completion Survey Development • 6-Month Hiring Survey Development • Program Completion Report • 6-Month Hiring Report	**$150,000**
2024 Survey Development & Reporting • 12-Month Hiring Survey Development • 18-Month Hiring Survey Development • 12-Month Hiring Report • 18-Month Hiring Report	**$125,000**

Next Steps

Accept the proposal as is or discuss desired changes such as incentive programs or data enablement for workforce partners.

Finalize and sign contract for 2022 suvey development and reporting

Submit payment for work outlined in contract for 2022 survey development and reporting

Schedule kick-off meeting

Contact

Sadie@sslinnovations.com

www.SSLInnovations.com

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1. Introductory Letter

City of Rancho Cordova
Economic Development
2729 Prospect Park Drive Rancho Cordova, CA 95670

Udacity, Inc.
2440 W El Camino Real
Mountain View, CA 94040
(650) 938-9090
Attn: Janice Utke

Dear Economic Development Department,

Thank you for the opportunity to respond to the NOFA and be considered for your Workforce Recovery Program in the City of Rancho Cordova. Udacity is delighted to present a proposal for a 4-month upskilling program for 125 students in your community to acquire job-ready skills in emerging technologies.

Nationwide, our economy is suffering from a skills shortage which is creating a chasm between unemployed/underemployed Americans and a large pool of attractive, well-paying jobs in the tech sector. Our primary goal in this proposal is to facilitate the acquisition of emerging technology skills in order to close this gap and better align supply and demand in the labor market. We also understand that the need for access to education is often compounded by other needs: child care, mobility, health care, etc. For this reason, we work hard to create lasting partnerships with providers of other social services.

Udacity was founded in 2011, and our mission is to train the world's workforce in the careers of the future. Udacity is venture-backed and has raised $195 million in capital from 2011 to 2021. Its major investors include Bertelsmann, Andreessen Horowitz, Charles River Ventures, and Drive Capital. For the Financial Year ending December 31, 2021, Udacity Consolidated Group recognized revenues of approximately $110.9 million and had cash reserves of approximately $61.8 million. We have sufficient capital to run our operations for the foreseeable future.

Today Udacity employs about 400 people globally. Between business development, program management, program operations & student operations, we expect to have 15-20 individuals working on this program. Further details on the project team can be found in our proposal.

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We understand and relate to your priority to increase access to career pathways and help those with barriers to employment in skilled occupations, specifically citizens in your community who are unemployed, underemployed, or looking to change career paths.

As an education platform focused on providing job-ready skills in technology fields, Udacity has collaborated with both public and private sector organizations to run workforce programs similar to the Workforce Recovery Program. We have been running similar community-based capacity building initiatives since 2016 (examples and references are provided in our proposal). Our programs regularly achieve completion rates as high as 80%, with positive career outcomes that average 72%.

This program proposes to support your goals in the following ways:

- Identify target student profiles & position the program offering to resonate with citizens who are unemployed, underemployed, or looking to change career path.
- Deploy marketing & media resources to solicit the applicants most likely to complete the program and land in gainful employment in a technology profession.
- Execute an engaging program to teach students job-ready skills in emerging technologies, supported by relevant project work.
- Build bridges between the students and local employers, facilitating the interview process and coaching students to maximize their chances of receiving an offer.

At a total cohort size of 125 students, Udacity is able to offer program participation at a price of $3,425 per student (for a total of $428,125). This covers Udacity's student acquisition efforts, and marketing efforts to promote the program, enrollment in/access to our nanodegree learning content, mentors and tutors for all students, student community resources, career services and career coaches, milestone reporting, and post-program impact assessments.

In addition, Udacity can provide support to help facilitate virtual employer engagement events, in-person employer engagement events, and informational sessions and/or distribution of information for wrap-around support services available to students. These additional services are coordinated with the local employers and wrap-around support providers with the goal of improving job placement rates, providing direct job placement or internship opportunities, and providing bridges to support for students who require transportation, childcare, job coaching, case management services, and other supportive services to aid in securing employment.

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Udacity understands that critical issues and challenges may arise during the deployment and management of our program. These may include challenges in sourcing program participants, and participant completion rates. Udacity is prepared to address these challenges if they arise and has a playbook of intervention tactics that has proven successful in increasing student acquisition efforts, student learning journey progression, and completion rates. In addition, we believe that Rancho Cordova's intention to pay a stipend and placement bonuses to students will measurably increase student engagement and completion rates.

Udacity's programs have specific milestones where KPI and success metrics are reported. These milestones are Post Application Phase, Enrollment Phase, Mid Program, End of Program, 3 months post program, 6 months post program, 12 months post program.

Additional KPIs and success metrics are gathered on a weekly basis and can be provided to the Rancho Cordova Economic Development Department by request.

We look forward to supporting your efforts with this Workforce Recovery Program, to help you deliver on your promise of a livable community with diverse economic opportunities, and generally promote a positive image of Rancho Cordova as a city and innovation leader in Workforce Development Programming.

Sincerely,

DocuSigned by:
Hisham Elaraby
F436F9F096FB408...

Hisham Elaraby

CFO

Udacity, Inc.

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Proposal

Workforce Recovery Program - City of Rancho Cordova

UDACITY

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3. Qualifications and Experience

Udacity

(Project Lead)

Udacity's mission is to train the world's workforce in the skills and careers of the future. Our platform is built on our Nanodegree program: a project- and skills-based educational credential program. Udacity Nanodegree programs consist of recommended courses comprised of online lessons designed to assist learners with the creation (and successful completion) of a relevant and practical project portfolio, taught by experts in their fields, and individually supported by technical experts and mentors.

Udacity was founded in 2011 by Sebastian Thrun and Peter Norvig. To date, over 13 million people across 160+ countries have learned technology-related skills on the Udacity platform.

Udacity Core Project Team

Janice Utke janice.utke@udacity.com	Sr. Enterprise Account Executive | Societal Impact	• Based in Phoenix • Over 2 years managing Udacity's Societal Impact and partnerships, previously 5 years in Enterprise Account Management (Workiva). • Maintains ownership and accountability to ensure the program's alignment to the strategic priorities of partners & clients
Rawan Gebran rawan.gebran@udacity.com	Head of Global Program Management	• Based in Dubai • 4 years running partnerships/program management at Udacity, previously 5 years spanning management consulting (McKinsey), product management, regulatory affairs, cause marketing. • Overseeing global program management; accountable to efficient delivery of outcomes across all program models
Evan Jansen (primary liaison) evan.jansen@udacity.com	North American Team Lead, Program Management	• Based in Chicago • Education background (BS Secondary Education, Indiana Univ.; MS International Educational Development, Univ. of Pennsylvania) • 9 years of experience in teaching, learning

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		assessments, student experience & educational development ● Single point of contact for Udacity partners & clients on the overall execution of the program ● Partnership with Program Operations and Student Operations to deliver a seamless program experience for learners

Udacity Extended Team

The broader Udacity team is well-staffed across a number of critical functions, to ensure that our programs are designed and executed to our highest standards.

- Student Support
    - Session Leads
    - Career Coaches
    - Community Moderators
    - Community Managers
- Program Operations
    - Community Operations
        - Oversight of all program related Slack/Discourse communities
    - Technical Support
        - Management of all support tickets related to any technical difficulties experienced on the Udacity platform
    - Career Services
        - Management of all services directed toward program participants' readiness for job placement post-graduation
- Student Operations
    - Product Operations
        - Ensuring that applications and assessments reflect program priorities and are executed smoothly
    - Enrollment
        - Oversight of eligibility checks, distribution of student body across sessions, governance of revoking and plagiarism
    - Mentor Sourcing
        - Sourcing and allocation of mentors, tutors and session leads
    - Mentor Performance
        - Oversight of all KPIs and performance benchmarks associated with effectiveness of mentors, tutors and session leads
    - Communications

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- Execution of program communications across email and SMS

Similar Projects run by Udacity

Below is a selection of case studies which reflect a variety of scenarios in which Udacity has partnered with the public sector and/or private entities to make a positive impact on communities.

1. Workforce Development Board of Central Ohio (Columbus) & OhioMeansJobs Columbus-Franklin County
    a. Description of services: In response to the COVID-19 pandemic, we developed a program concept in partnership with WDBCO and key local employers to upskill residents of Franklin County in Business Analytics, Digital Marketing or UX Design. The program achieved a 78% graduation rate among WIOA-funded learners (57% overall), with employers like JP Morgan Chase, Cardinal Health and Huntington Bank playing an active role. The program attracted an applicant base that was nearly 50% non-white and 75% low income.
    b. Total project value: $281,000
    c. Reference: Lisa Patt McDaniel, CEO of the Workforce Development Board of Central Ohio
    d. Phone #: 614-559-6051
    e. Email address: lpattmcdaniel@wdbco.org
    f. Industry: Workforce Development
    g. Address: Workforce Development Board, 1650 Lake Shore Drive Suite 110, Columbus, Ohio 43204
    h. Dates of service: Jan-Jun, 2021
    i. Contract term: 2020-2021
2. Center on Rural Innovation (14 unique rural communities)
    a. Description of services: In order to support CORI's Rural Innovation Network in attracting community members to opportunities in the digital economy, Udacity delivered a multi-phase foundational learning program to 204 graduates in Business Analytics, Digital Marketing or Front End Web Development. The foundational program largely reached groups underrepresented in technology roles, including 66% of participants identifying as female.
    b. Total project value: $216,000
    c. Reference: Mark Rembert, Director of Research and Knowledge at CORI
    d. Phone #: 1-802-436-4100
    e. Email address: mark.rembert@ruralinnovation.us
    f. Industry: Workforce Development

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   g. Address: Center on Rural Innovation, 2 Quechee Road, Hartland, Vermont 05048
   h. Dates of service: 2020-2021
   i. Contract term: 2020-2021
3. Blacks in Technology Foundation Scholarship Program (Global)
   a. Description of services: With a goal to increase representation of Black professionals in the technology industry, Udacity built a program in which 1,000 applicants were given access to Udacity Nanodegree programs. The 150 top performers were granted access to an intensive four-month immersion in one of three nanodegree fields: Product Manager, Cloud DevOps, and Programming for Data Science with Python.
   b. Total project value: $300,000
   c. Reference: Dennis Schultz, Executive Director at Blacks in Technology Foundation
   d. Phone #: 908.938.1319
   e. Email address: dschultz_ny@blacksintechnology.net
   f. Industry: Non-Profit, Foundations
   g. Address: 4132 Foxpoint Ridge, Cleves, Ohio 45002
   h. Dates of service: Jan - Dec, 2021
   i. Contract term: 2021-2022
4. The City of Rancho Cordova
   a. Description of services: Udacity launched the Tech Career Incubator Scholarship to provide tech career pathways to 50 residents of Rancho Cordova who faced significant barriers to employment. The program was designed based on local skills demand from employers and the general labor market. Applicants had the chance to choose either Business Analytics or Introduction to Programming. The scholarship upskilled program participants and provided them with job-ready skills to succeed in a stable, well-paying tech occupation.
   b. Total project value: $ 160,000
   c. Reference: Amanda Norton, Economic Development Manager, Rancho Cordova
   d. Phone #: 916.851.8783
   e. Email address: anorton@cityofranchocordova.org
   f. Industry: Government, Workforce Development
   g. Address: City of Rancho Cordova, 2729 Prospect Park Drive, Rancho Cordova, CA 95670
   h. Dates of service: January - July, 2022
   i. Contract term: 2022-2023

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4. Project Description

Name of Project

Rancho Cordova Workforce Recovery Program

Project Design

Udacity's vision is to provide tech career pathways to residents of Rancho Cordova who face significant barriers to employment. By designing a program that caters to the needs of employers and the general labor market, we aim to upskill program participants and provide them with job-ready skills to succeed in a stable, well-paying tech occupation.

We propose a cohort of 125 students, offering two distinct nanodegrees tailored to the needs of the local job market in Rancho Cordova. Applicants would have the chance to choose from one of two nanodegrees offered. Rancho Cordova Economic Development Department may choose specific Nanodegrees based on local employer's demand, or Udacity may suggest two Nanodegrees (below) using market data for job and skill demand in the Greater Sacramento Area.

Below we've included a snapshot of Udacity's overall program catalog. It is our recommendation to offer the Business Analytics Nanodegree and the Digital Marketing Nanodegree tracks (syllabi included in Section 8) as part of the Rancho Cordova Workforce Recovery Program, based on the local skills demand for the Greater Sacramento area and anticipated cohort demographic makeup (see skills demand data in Section 8).

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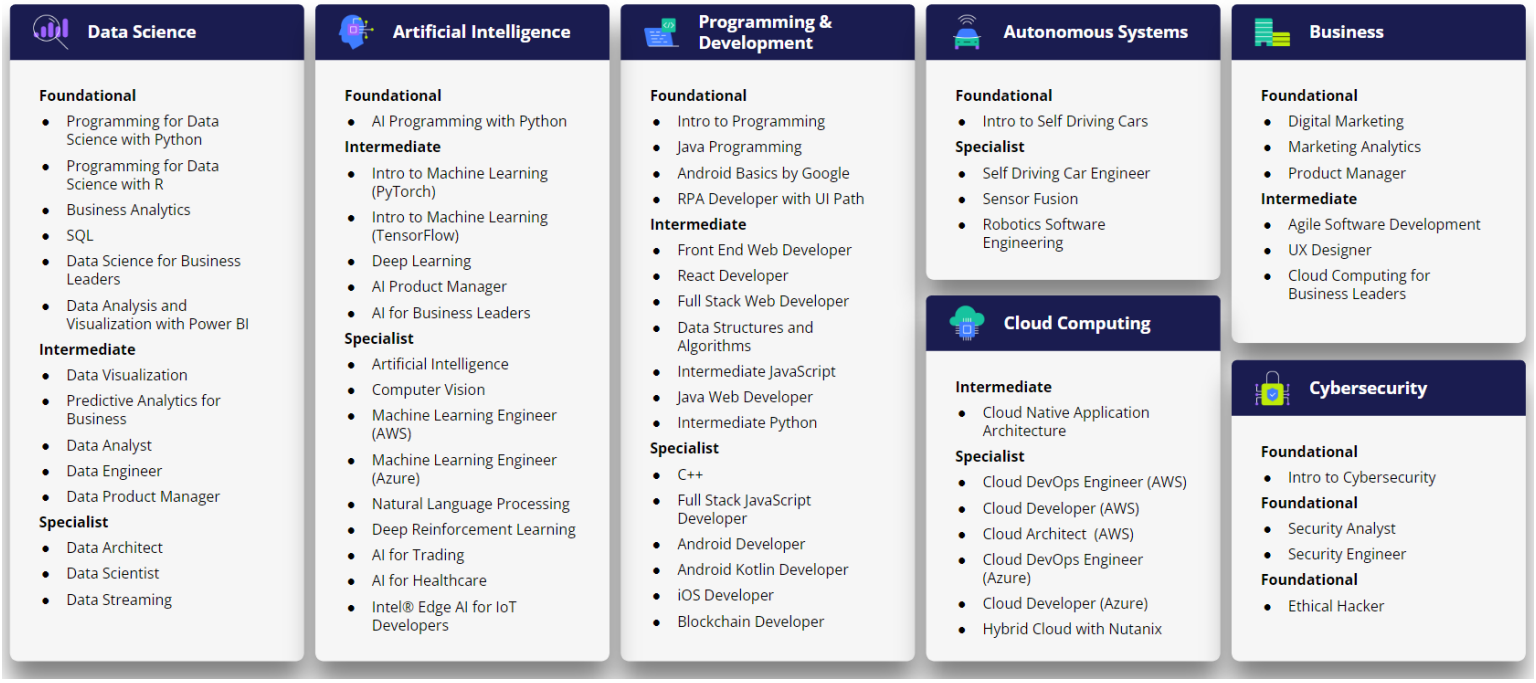


Data Science

Foundational
- Programming for Data Science with Python
- Programming for Data Science with R
- Business Analytics
- SQL
- Data Science for Business Leaders
- Data Analysis and Visualization with Power BI

Intermediate
- Data Visualization
- Predictive Analytics for Business
- Data Analyst
- Data Engineer
- Data Product Manager

Specialist
- Data Architect
- Data Scientist
- Data Streaming

Artificial Intelligence

Foundational
- AI Programming with Python

Intermediate
- Intro to Machine Learning (PyTorch)
- Intro to Machine Learning (TensorFlow)
- Deep Learning
- AI Product Manager
- AI for Business Leaders

Specialist
- Artificial Intelligence
- Computer Vision
- Machine Learning Engineer (AWS)
- Machine Learning Engineer (Azure)
- Natural Language Processing
- Deep Reinforcement Learning
- AI for Trading
- AI for Healthcare
- Intel® Edge AI for IoT Developers

Programming & Development

Foundational
- Intro to Programming
- Java Programming
- Android Basics by Google
- RPA Developer with UI Path

Intermediate
- Front End Web Developer
- React Developer
- Full Stack Web Developer
- Data Structures and Algorithms
- Intermediate JavaScript
- Java Web Developer
- Intermediate Python

Specialist
- C++
- Full Stack JavaScript Developer
- Android Developer
- Android Kotlin Developer
- iOS Developer
- Blockchain Developer

Autonomous Systems

Foundational
- Intro to Self Driving Cars

Specialist
- Self Driving Car Engineer
- Sensor Fusion
- Robotics Software Engineering

Cloud Computing

Intermediate
- Cloud Native Application Architecture

Specialist
- Cloud DevOps Engineer (AWS)
- Cloud Developer (AWS)
- Cloud Architect (AWS)
- Cloud DevOps Engineer (Azure)
- Cloud Developer (Azure)
- Hybrid Cloud with Nutanix

Business

Foundational
- Digital Marketing
- Marketing Analytics
- Product Manager

Intermediate
- Agile Software Development
- UX Designer
- Cloud Computing for Business Leaders

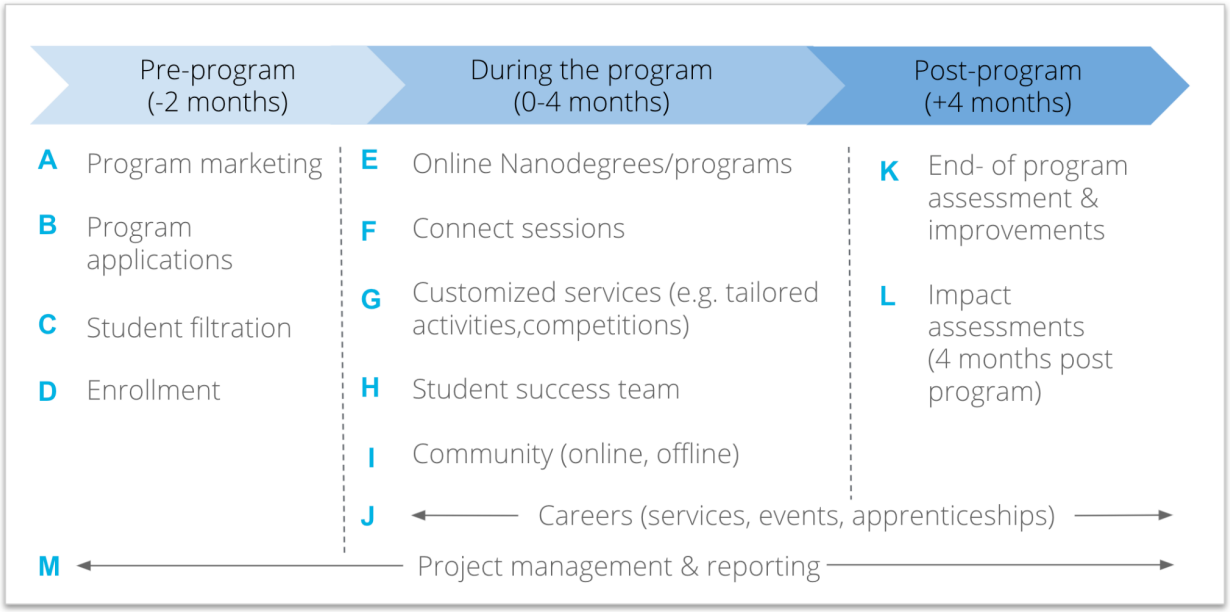
Cybersecurity

Foundational
- Intro to Cybersecurity

Foundational
- Security Analyst
- Security Engineer

Foundational
- Ethical Hacker

Our proposal suggests a 4-month 'Connect' program, which follows the framework provided below:



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Describe in detail your strategies for engaging, recruiting, enrolling and serving job seekers.

Udacity partners with Rancho Cordova, local partners, and employers, to pool assets and resources, to be deployed in such a way to achieve the following:

- Define the ideal customer profiles (ICP) of target populations
- Define a value proposition and positioning for the program which is most likely to resonate with these populations
- Develop a dedicated program landing page with tailored messaging and creatives
- Create an email campaign to relevant audience segment from our 2 million+ active user database
- Amplification across owned social platforms: Facebook (851k followers), Instagram (79k), LinkedIn (375k), Twitter (247k)
- Option to deploy marketing & media resources across paid channels to reach these populations with a relevant message that will drive awareness, consideration and ultimately engagement with the program

Once engaged, a subset of these prospective applicants enter our application funnel, whereby we take the following approach:

- Provide more detailed information on the program, including sponsors, calendar, eligibility requirements, and descriptions of the curriculum being offered.
- Applicants are made aware of the dates for application open and close, notification, and program kickoff.
- We address common FAQs and offer an email address for prospective applicants to use if they need dedicated support.
- An example of this information page can be found here.

Following this step, applicants are asked a handful of qualifying questions to establish basic competency in the subject matter. Absent any prerequisites of the chosen nanodegree programs, at minimum we ask applicants to confirm their availability for weekly Connect Sessions and access to the requisite reliable internet and hardware.

For more detail on enrollment and serving job seekers, please see sections below (“Describe the intake process” and “Career Pathways”.)

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Describe innovative ways in which you will outreach to individuals.

Udacity's standard student acquisition efforts includes generation of creative content, imagery, and written copy, and organic and paid social posts, paid media, paid ads, and email campaigns to Udacity's student database. This also includes the sharing of assets, and copy, and consultation to partners and clients on best practices for their joint PR, marketing, and student acquisition strategy.

In addition to Udacity's standard student acquisition campaign efforts, Udacity may also deploy other innovative and grassroots efforts to reach individuals which may include:

- *Utilizing community partnerships* - such as Folsom Cordova Community Partnership (https://www.thefccp.org/), to reach local job seekers.
- *Re-targeting past applicants & participants from previous Tech Career Incubator Program* - Encourage learners to apply to and promote programs; encourage nominations and referrals.
- *Solicitation of UI claimants* - In the past, in partnership with local workforce boards, we have used a weekly email distribution list of individuals claiming unemployment insurance benefits, to drive awareness of our programs with a very targeted subset of the population.
- *Facebook Live* - live program information session aimed at prospective applicants. The session, and the recorded assets, generate organic exposure across a number of other social media platforms as well.
- *Remarketing to Jobs Center visitors* - work with Rancho Cordova curate lists of individuals within a geographic area who exhibit a high likelihood of interest in a sponsored nanodegree program. These individuals can be contacted via email or phone.
- *Distribution of flyers at local and/or regional community employment organizations.* Working in specific communities that lack high broadband penetration, we have developed print collateral which is then distributed at local 'hotspot' hubs where a qualified audience is likely to see them, driving awareness for our programs.

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Description of the population served. Include demographic, social, academic and other elements to demonstrate your working knowledge of the populations and communities you propose to serve.

The Rancho Cordova population served by this program is broadly defined to include an adult population (either unemployed, underemployed or looking to change career paths), who also has a career interest in technology and the desire/motivation to upskill themselves.
Udacity has deployed numerous programs around the world which have supported multiple languages, all ages 15+, and alignment to Diversity Equity and Inclusion enrollment metrics (50%-100% BIPOC and/or Female). Our program design will include our recommendations and strategy, based on experience, to best support the diverse community of Rancho Cordova and the individuals enrolled.

- Demographics
    - Rancho Cordova skews high for its millennial share of total population (21% higher than US average).[1]
    - Rancho Cordova skews high for its share of total population identifying as a racial minority (24% higher than US average).[2]
    - Foreign born persons, percent, 2016-2020 equals 24.5% (census.gov)
    - According to the city website - The City of Rancho Cordova is a diverse community of nearly 80,000 and is the 29th most diverse city in the United States (Esmi)
- Education
    - Bachelor's degree or higher, percent of persons age 25+, 2016-2020, equals 27.4% (census.gov)
- Industry sector
    - Professional, Scientific, and Technical Services in Rancho Cordova is expected to increase by +224 jobs by 2024[3].

[1] Source: Emsi, three zip codes comprising City of Rancho Cordova, Q2 2021.
[2] Source: Emsi, three zip codes comprising City of Rancho Cordova, Q2 2021.
[3] Source: Bureau of Labor Statistics.

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Describe the intake process, including collection of basic information from potential clients, informing potential clients of available services in your organization or elsewhere, and determination of client suitability for program services.

Udacity works directly with partners to define evaluation criteria for applications. Accordingly, learners are selected for enrollment, and are invited to attend a kick-off session, which initiates the start of their learning journey. This is when learners are enrolled in their online Udacity Nanodegree classroom.

During this phase, Udacity provides visibility into the number of applications received, broken down by further metrics required to evaluate applications. This allows for regular monitoring of application flow, and provides information to guide and optimize all outreach efforts.

When a prospective student enters the application process, Udacity will ask for certain basic information (name and email address), plus any information required for funding eligibility (e.g. address/residency, employment status) or program eligibility (e.g. access to a computer & broadband connection). This is followed by a more detailed technical assessment relevant to the chosen Nanodegree program itself.

If an applicant, after beginning the application process, finds they are not eligible or no longer interested in the program, we are able to offer them access to a seat in an individual Nanodegree program (example)[4] and also make them aware of other scholarship programs which might be of interest to them.

Describe the program's model of service delivery – cohorts, open entry-open exit, one on one mentoring. Trainees outplaced with employers, etc.

We propose a cohort-based model in which Udacity delivers deeply specialized training (in subject matter relevant to technology careers) through our own online platform. Learners access the solution through the web and take courses online.

Udacity implements best practices in instructional design, uniquely focused on providing learning experiences that are efficient, effective, and economical. Our Nanodegree

[4] An individual Nanodegree offers the student access to the same curriculum they would get in a managed cohort, minus a number of the supports and interventions that correlate with strong program outcomes such as credential attainment, job placement, etc.

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programs are expressly designed to enable career advancement and job skills acquisition. Udacity's collaborations with industry[5] are also a key factor in the success of this model, as is the company's commitment to a hands-on, project-based approach.

There are three types of specialists who employ a particular focus on the efficacy of learning in our programs:

1. Our solution architects engage in an immersive course development experience that combines industry visionaries with our team of instructional design and pedagogical experts. When creating projects, they write instructional materials, generate sample solutions, and finalize grading rubrics -- while creating up to 20 hours of student learning content alongside a curriculum manager. This includes lessons, quizzes, exercises, videos and self-assessments. This phase is followed by video production, feedback collection from beta testers, and any necessary revisions to course content or projects. Once finalized, the course is launched in Udacity's online classroom.

2. Our Session Leads' job is to help students succeed.
    a. Their job responsibilities include reinforcing concepts learned in the Nanodegree program, planning and meeting with students for group work, and leading activities and short lectures on a weekly basis. They also report on student attendance and progress, and provide weekly observations on each session to the Udacity team.
    b. They typically bring 3+ years of working experience related to the chosen Nanodegree program, as well as experience teaching technical concepts, organizing technical talks/events/forums, and public speaking. We look for individuals with a student-oriented mindset who are proactive, positive, innovative, and know how to build trust in both group and 1:1 settings. Oftentimes they are former graduates of the same Nanodegree program they are facilitating.

3. Our Program Manager oversees all program operations, of which one of the core responsibilities is to understand how specific individual learners are doing in their Nanodegree programs, and to take actions when necessary (e.g. unenrolling a

[5] Udacity maintains content partnerships with many well-known names in tech, including: Google, Amazon, Facebook, IBM, Mercedes-Benz, Intel, AT&T, Uber, Lyft, NVIDIA and BMW.

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disengaged learner, or sending a reminder email). They prepare external reporting based on the metrics monitored, including:

1. Attendance - Specifically with respect to “Connect” sussions (this is manually populated by session leads)
2. On Track Status - This provides a view of the % share of learners who are on track, vs. falling behind, vs. in danger of not completing.
3. Project Submission - This shows the number of projects submitted per learner, which is an indication of their learning. This module supports session leads in reaching out to learners who are behind, and support them with the appropriate interventions.
4. Additional reporting is available as needed to provide data cuts relevant to the types of services/interventions being provided, as well as relevant to demographic subgroups of the cohort.

Describe the process for developing and managing individualized employment plans with job seekers.

Within the Nanodegree program, our Career Services offering helps learners meet the employers halfway. Through either pre-recorded webinars and live virtual workshops, we help students build the soft skills needed to approach their job search. Live workshops are delivered by Session Leads covering topics such as Elevator Pitch, Job Search Expectations, Professional Profiles.

We also offer individualized review of resumes and cover letters by an industry professional. We also offer personalized, written feedback on individuals’ GitHub and LinkedIn profiles, to maximize exposure and career opportunities via these platforms.

In addition, we collaborate with local employers to host “Employer Webinars” with the learners. These events typically include learning from career professionals within the Nanodegree categories about their daily job responsibilities and career expectations. They also include an interview preparation session where employer’s talent acquisition/human resources professionals present information about creating resumes and going through a typical interview process. These help our learners to transition from skills development to employment by understanding how to market their new and existing skills.

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Describe strategies that will be utilized to ensure individuals obtain the skills needed to obtain and retain employment.

Udacity works with industry leaders to create project-based online learning programs. Our hands-on approach features interactive learning content, paired with real-world projects with project reviews and feedback from industry subject matter experts. These unique collaborations ensure that students learn relevant skills that correspond to actual needs in the market.

Evaluations are made based on a project rubric that is defined by Udacity's content and education experts. The evaluators for these projects, referred to as Udacity's project reviewers, are a pool of hundreds of technology experts, carefully selected, compensated and managed by Udacity. Udacity project reviewers provide line-by-line feedback to learners on their submitted projects within 24 hours of submission. Learners can submit the project as many times as needed, until they pass the project. Passing all projects graduates learners from the Nanodegree program.

Through our Career Services and Community modules, we also seek to reinforce numerous softer skills (a.k.a. "life skills") which help to make our learners more employable once they emerge from a Nanodegree program. Examples include how to craft an elevator pitch, how to collaborate in a team environment, etc.

Describe your follow-up strategies and how they will enhance training completion rates, job retention, and growth towards career pathways.

Udacity Nanodegree programs are paired with numerous supports and interventions which drive completion rates as high as 70%+. This is primarily achieved through interactions with Session Leads, Tutors, and Moderators:

- Session Leads
    - Deliver weekly Connect Sessions (2-3 additional hours per week) typically consisting of 25-35 students, in which they facilitate direct, live dialogue on case studies & other activities that reinforce their online learning.
- Tutors
    - Technical support regarding Nanodegree content and technical challenges faced during the learning journey

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    - Live walkthrough webinar to help students stay on track and graduate on time
    - Dedicated support sessions before project deadlines
    - Circulation of interesting extracurricular information, e.g. content-related news articles to enrich personal and professional aspects of the Nanodegree program
    - 1:1 support over Slack whenever necessary
- Moderators
    - Support for non-technical questions (related to the initiative, rules and policies)
    - Organizing the community; making sure topics are properly assigned in the right categories, closing duplicated and inactive topics, dealing with flags
    - Ensuring all members are respecting community guidelines

Additionally, our programs include Slack channels which give learners a chance to interact directly with their peers and Session Lead, who provide technical support to learners. These are also useful in reinforcing the students' motivation to persevere through a challenging program.

Career Pathways

The practitioner-level skills conveyed in a Nanodegree program are primarily built and reinforced through the projects submitted and reviewed throughout the duration of the program.

Project-based learning reinforces career pathways in multiple ways:

- Actively applying concepts learned in the classroom, and combining them with critical thinking skills, help to broaden the scope of knowledge.
- This format encourages students to use metacognitive skills to develop plans to create, monitor, and execute their designs -- reflecting the decision-making, communication, and problem-solving skills that employers are looking for.
- Demonstrating real-world application of subject matter to prospective employers conveys confidence in true mastery of material beyond basic recall.
- The ability to receive feedback and apply it to multiple iterations of a project helps to deepen the learning process and reflects common real-world job scenarios.

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Additional Support Services

For program participants who lack access to reliable hardware, broadband, transportation, childcare, additional career services or general case management, Udacity maintains relationships to outsource the provision of these services. This includes organizations such as the Greater Sacramento Economic Council, as well as numerous partnerships with non-profit foundations who serve diverse populations and can facilitate introductions and wraparound support for participants on an as needed basis.

Describe strategies utilized for employer engagement, employment referrals, and job placement services.

Udacity maintains partnerships with a wide range of reputable employers. Globally recognized companies partner with Udacity to re-skill and level-up their existing workforce, so their employees can advance their careers within the company.

The following are examples of enterprise partners to Udacity: AT&T, Shell Oil Company, Airbus, Cisco, Mazda Motor Corporation, Credit Suisse, Telenor, Royal Bank of Scotland.

In order to build our leading-edge tech curriculum, we also maintain content partnerships with many well-known names in tech, including: Google, Amazon, Facebook, IBM, Mercedes-Benz, Intel, AT&T, Uber, Lyft, NVIDIA and BMW.

In our Nanodegree programs, we engage employers in the following ways:

- Pre-program
    - In partnership with local stakeholders, we solicit needs from key employers to gauge/confirm talent objectives, skill needs related to open positions, and relevant community initiatives. This input, along with labor market data, helps to guide our selection of the appropriate Nanodegree programs to include in our overall program concept.
- During the program
    - Willing employers are invited to participate in the Nanodegree program via our Employer Engagement Platform, whereby we offer them an opportunity to communicate directly with students via webinar. Participants generally use this opportunity to speak to why they are a good employer, what they look for in hiring for specific departments, how people thrive in their organization, and so on.

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- Post-program
    - Udacity participates in hiring events organized by local stakeholders, and is available to coordinate with these employers to promote key roles or generally facilitate a more useful experience for program participants/graduates.

Describe the specific roles these employers will play in your program.
Please see above.

Past Performance and Planned Outcomes

Describe your experience implementing workforce development employment and training services programs over the past 2 years. Identify performance measures, results, along with other key benchmarks and outcomes such as: total served, total placements, percent of positive exits.

- Globally to date, Udacity maintains partnerships with governments, foundations, enterprises and other organizations and has impacted over 13 million learners across 100 countries.
- From January 2021 to October 2022 Udacity has enrolled more than 100,000 students into Nanodegrees Scholarship programs. This has resulted in over 45,000 graduates.
- 72% of graduates who signed up with the intention of advancing their career got a new job, a promotion, or received a raise within 12 months.
- 50% of graduates who signed up with the intention of advancing their career received a median pay increase of 33% within 12 months.
- 70% of all program participants report positive career change as a result of the program within 3 months
    - Udacity defines a Positive Career Outcome (PCO) when students report one of the following criteria:
        - I started a new job
        - I started an internship
        - I got a raise or promotion
        - I started my own business
        - I started a freelancing gig
        - I started a new academic program

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- I did not experience any of the above - (measurement for “no PCO”)
- Free form answer

Describe your strategy for monitoring and measuring performance and outcomes. Specifically,

Udacity tracks applications, enrollments and activity in the first month prior to the program revoking milestone. After, we track student progress and the impact of our interventions throughout the remainder of the program using our pulse-check survey and mid-cohort survey.

Udacity Community Moderators monitor activity in the Slack channel for student engagement, and Session Leads track attendance rates for weekly sessions throughout the 4-month learning journey on a weekly basis. Coursework progression and completion is monitored and tracked in our classroom / learning platform.

Finally, we track student completion and other relevant feedback using our graduate and non graduate end-of-cohort surveys. To measure career outcomes, we then issue career impact surveys at 3, 6, and 12 months post program. These surveys measure PCOs which may include, apprenticeships or internships received, interviews achieved, job attainment, freelancing or gig attainment, salary increase, and employer name.

Partnerships

Udacity has built relationships with the Folsom Cordova Community Partnership (FCCP), the Greater Sacramento Economic Council (GSEC), and local employers including PowerSchool, VSP, Solidigm, and Zennify, with the goal of continuing to expand this network. During the program design phase of the scholarship, employers and partners will be included in the development of an employer engagement strategy and student career development and hiring opportunities. Other activities may include collaboration in student acquisition efforts, employer webinars, networking events, student wraparound support and soft skills training.

Project Expected Timeline

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Below is an illustrative example of timetables associated with key project milestones.[6]

Milestone	Date	Key Prerequisite Milestone/Contingency
Completed review of proposals	10/21/2022	None
Confirmation of approval	11/7/2022	Award confirmation
Finalization of program scope	11/14/2022	Award confirmation
Finalization of contract	11/28/2022	Counter-signed agreement
Begin sourcing Session Leads	12/1/2022	Internal Program Launch
Application open	2/7/2023	Application approval from client
Application close	4/3/2023	Enrollment goal achieved (# of seats + 20% over-enrollment)
Finalization of student list	4/12/2023	Confirmation of final learner list from client
Finalization of Session Leads	4/12/2023	Approval from mentor sourcing team
Enrollment open	4/14/2023	Finalization of learner list
Enrollment close	4/18/2023	100% enrollment of final learner list
Program launch	4/18/2023	Confirmation from client on Kickoff Webinar date
Program graduation date	8/16/2023	Achievement of graduate rate goal
Program extension	9/13/2023	Confirmation from learning experience designers on the approval of an extension (based upon # of remaining active learners)

[6] This timetable acts on a number of assumptions, and the associated duration of certain milestones may differ from our initial estimate, depending on the agreed scope of various program elements (e.g. size of cohort, provision of specific services, scope of marketing/outreach phase, role of partner organizations). Udacity will provide a more precise timetable as specific details are confirmed.

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5. Sources and Uses of Funds

At a total cohort size of 125 students, Udacity is able to offer program participation at a price of $3,425 per student. The total amount of $428,125 would be funded entirely by the City of Rancho Cordova.

Udacity's program model is intended to be scalable to meet varied labor market needs. If there are additional communities or employers in the region who would benefit from this type of program, we would be willing to combine a larger student population into this learning cohort in order to offer more competitive pricing (on a per-student basis).

6. Conflict of Interest Statement

Udacity is not aware of any activities or relationships that might create a conflict of interest for either Udacity or the City.

7. Exceptions

We do not propose any exceptions to the requirements specified in this NOFA.

8. Supportive Information

- Further detail on job postings for analytics skills can be found here.
- Further detail on the job market for Greater Sacramento for analytics and digital marketing skills can be found here.
- Recommended Nanodegree Syllabus:
    - Udacity Enterprise Syllabus Business Analytics
    - Udacity Enterprise Syllabus Digital Marketing

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Workforce Recovery Program

City of Rancho Cordova

WOMEN IN DATA

1. Introductory Letter

October 20, 2022

City of Rancho Cordova
Economic Development
2729 Prospect Park Drive
Rancho Cordova, CA 95670

To Whom It May Concern:

Regarding your request for proposal (RFP), Women in Data (WiD) looks forward to the opportunity to provide employment training and job placement through our network of employers for Rancho Cordova Residents. Women in Data sees workforce transformation as a vital step in transitioning the current workforce into better paying and higher skilled careers to produce economically sustainable communities. Our program goals align with those of Rancho Cordova's in the fact that we target individuals who were most affected and displaced from the workforce due to COVID-19. In addition, our overall objective for the program is not only to train, mentor, and coach individuals, but see them placed into a high paying job by the end of the program.

Having these goals as our primary focus, we intend to address this need by providing upskilling, and reskilling in data analytics, mentorship, resume support, continuing education, and job placement. With all workforce development programs, it is important to identify the critical issues and challenges we should expect to face. Based on our previous experience we've identified three areas (1) finding participants with the greatest need and potential, (2) ensuring participants complete the training, and (3) attaining end-of-program employment opportunities.

To mitigate the first of these challenges, we have identified the greatest need in those who are underemployed, unemployed, under skilled, or looking to change career paths. We believe those that will be most successful in this program are those with prior work experience who are looking to upskill for a higher paying job, and we will select for these individuals through our application process.

Regarding training, we have analyzed the current market trends to find the most in demand job and skills for 2023-2025. Through this analysis we have curated a training program that will teach the participants the top six skills requested by employers on job descriptions for data analysts (See Section 8: Supportive Information). Based on our experience with training individuals, we have structured this program to be part-time, hybrid (on demand and instructor led), small cohort based with gradual learning to optimize for completion rates and long-term retention of skills.

Finally, to mitigate the job placement challenges, we will work with our network of hiring companies to secure a set number of internship and/or job opportunities for the top graduates from the program. If participants are not able to obtain a job or internship immediately from the program, we will provide 6-months of continual hiring support, continuing education, and community support.

To accomplish these goals, we have identified key milestones that give all parties the ability to measure and track success along the way. We feel that these milestones are best represented by the following: 1) Marketing materials and landing page setup 2) Applications open and program promotion 3) Confirmed participants in the program 4) Program kick-off gathering 5) Data analyst certificate training 6) Certificates awarded 7) Opportunities secured for internships and hiring of the participants 8) Hiring support and continuing education access. Through these milestones, we will track and measure success to make sure we hit or exceed Rancho Cordova's target goals of 100% of participants starting the program, 75% of participants completing the training, 50% obtaining a certificate, 35% employed (undefined) and 25% employed (training related). Ensuring that each participant is given every possible opportunity to advance towards the program's goal, of entry/re-entry into the workforce with a better paying career.

Overall, Women in Data has the experience and confidence to successfully develop, lead, and achieve the goals of this program. Having previously administered a workforce development program for the City of Rancho Cordova from 2021-2022. Through this program, 85% of participants received a certificate, 20% were hired after the first 3-months, and 98% of participants said they would recommend the program to a friend. Additionally, Women in Data provides multiple education and career advancement opportunities to its globe community year-round through learning pathways, and its career services. Therefore, we are confident that based on our past learnings, experience, and hiring network we will be able to achieve the City's goal of 35% hired.

We look forward to bringing our experience, expertise, and community to Rancho Cordova to support your Workforce Recovery Program and appreciate the care you have given to your community by identifying this important need. We are excited about the opportunity to work alongside you and help individuals in Rancho Cordova find success.

Sincerely,

Sadie St Lawrence,
CEO Women in Data

2. Table of Contents

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3. Qualifications & Experience

Women in Data Science and Analytics Inc. (DBA: Women in Data) was incorporated on December 31st, 2015. IRS tax status for the organization is up to date and compliant. The 2023 budget for the organization is $1,250,000. Major funding sources include, membership dues, company sponsorship, individual donors, and grants. Women in Data will be the project lead for this project and will be responsible for the development and management of the project. Women in Data will provide DataCamp licenses for the participants which will give them access to the DataCamp learning portal for 12 months. Women in Data will be responsible for setting up the sequencing course work, providing an instructor to assist participants through the learning objectives and certificate process, and validate that they completed the required classes and project to obtain a certificate.

Currently, Women in Data works with multiple Fortune 500 organizations to source talent. We have successfully upskilled hundreds of individuals in our network and successfully sourced talent to these organizations for data roles such as data analyst, data scientist, and data engineers. Sadie St. Lawrence has personally help educate over 460,000 people globally in data science through UC. Davis's continued education program on Coursera.

Women in Data is experienced in successfully leading workforce development programs. A reference to a few of these programs are listed below:

Project 1: Workforce Recovery Program: The Path Forward. Location: 2729 Prospect Part Drive, Rancho Cordova, CA 95670. Twenty participants were taking through a 3-month data analyst training to obtain a certificate. From this program, 4 participants were hired into a new or better role after completing the program.

Project 2: Women in Data led 8 participants through an 8-week residency program for Hank. Hank is an energy company specializing in HVAC energy efficiency for commercial buildings. Company Location: 950 Reserve Dr. Suite 100, Roseville, CA 95678. In this program, WiD trained participants to complete their first data science project by optimizing the HVAC algorithm for Hank. Participants were provided training, resume review and interview coaching. From this program, 4 participants were hired into a new or better role after completing the program.

Project 3: COVID Impact Analysis for The City of Sacramento. Location: 915 I St, Sacramento, CA 95814. Seven participants were taken through the 8-week program and participants were provided training, resume review and interview coaching. From this program, 3 participants were hired into a new or better role after completing the program.

Project 4: Racial Disparity Analysis for The City of Sacramento. Location: 915 I St, Sacramento, CA 95814. Five participants were taken through the 8-week program and participants were provided training, resume review and interview coaching. From this program, 2 participants were hired into a new or better role after completing the program.

Project 4: Homelessness Analysis for The City of Sacramento. Location: 915 I St, Sacramento, CA 95814. Six participants were taken through the 8-week program and participants were provided training, resume review and interview coaching. From this program, 3 participants were hired into a new or better role after completing the program.

The key staff who will run this program are listed below:

Project Lead – The project lead will be the primary liaison for the project and will be responsible for meeting all the KPI's for the project and successful completion. The Project Lead will oversee all aspects and ensure the project team is operating effectively to the achieve job placement for all the participants. Sadie St Lawrence will be the project lead. She has trained over 400,000 people in data science and analytics and has mentored and coached individuals to land their first job in analytics. She is an effective leader and has experience leading workforce transformation projects and multi-million-dollar deliverables. Contact information: Sadie.stlawrence@womenindata.org, Sacramento, California, (916) 247-5905.

Program Coordinator – The program coordinator will be responsible for the project execution and will lead the candidate selection process, onboarding, transfers and hand-off between programs, mentor matching, and ensure candidates successfully complete each phase of the program and are placed into jobs. Women in Data's Program and Platform Coordinator will facilitate this role.

Communications/Marketing Coordinator – The communications and marking coordinator will be responsible for marketing the program to find candidates, this includes but is not limited to building the application lading pages, creating content and copy for marketing of the program, running digital ads, finding candidates, and creating blog posts and marketing materials to communicate program impact. In addition, the communications/marketing coordinator will be responsible for communicating with participants on a weekly basis to check-in, creating impact reports, and success stories. Women in Data's Content and Events Manager will facilitate this role.

Business Relations Manager – The business relations manager will be responsible for finding organizations hiring for data analyst roles and getting a commitment from the organization to hire or provide an internship for our participants. Women in Data's Partner Relations Manager will facilitate this role.

Data Analytics Instructor – The Data Analytics Instructor will be responsible for assigning participants course work, answering questions for the classes, and coaching the participants through the certification process for successful completion. Neslihan Bisgin will be one of the Data Analytics Instructors. Neslihan has prior experience teaching for Women in Data, Flatiron School, and the University of Michigan. Contact information: Neslihan Bisgin, Neslihan.bisgin@womenindata.org, Grand Blanc, MA, (806) 789-4744.

4. Project Description

a. Project Name: The Path Forward

b. Project Design:

1. Strategies for engaging, recruiting, enrolling, and serving job seekers:

We will use a variety of methods to engage and recruit individuals within the City of Rancho Cordova. First by reaching out to the people who applied to the program last year but were not accepted into the program given the limited capacity This list includes 50+ people. We will also provide outreach regarding the application through the greater Sacramento Women in Data Chapter network, and though targeted digital ads via Facebook, Instagram, LinkedIn, and Twitter. During the 2021-2022 program we saw the highest number of applications after the TV segment from the Career Fair Rancho Cordova hosted with the other service providers. Therefore, if the City chooses to do this again, we would be happy to assist in the media outreach.

2. Population served:

Our program is designed to target those who looking to change career paths and those who jobs are most at risk of automation or unemployment. According to the World Economic Forum Future jobs report, the jobs with the highest risk of unemployment are 1) Accommodation and Food Service 2) Wholesale and Retail Trade 3) Transportation 4) Education (*See Supportive Information Section C: Workers at Risk of Unemployment*). Our target audience will be Women since women saw a high percentage of displacement during the pandemic compared to men (*See Supportive Information Section D: Workers Who Lost Their Jobs by Gender),* however it is important to note that we will accept both men and women into this program.

3. Intake process:

A website landing page will be created to give applicants information regarding the program. From the landing page, applicants will be required to submit basic information such as name, contact info and place of residency to ensure they are a Rancho Cordova resident. In addition, they will be required to submit their current employment status, salary, and education.

4. Model of service delivery:

Five cohorts of 10 individuals will be formed and ran sequentially. Each cohort will have a set application date, start date, and end date (*See timeline in Section 5: Expected Timeline*). The first three months of the program will be to reskill and upskill individuals in data analytics to receive their data analytics certificate with DataCamp classes and an instructor led training. Through this training, participants will not only learn the top 6 most requested skills by employers but will be required to update their resume and will be provided feedback. Women in Data will due it's due diligence in finding employers who are looking to hire at the end of the program. If the participants are not hired by the end of the training, Women in Data will provide six months of additional hiring support. This support will include, sourcing

job opportunities, providing interview prep, resume review, personalized coaching sessions, and hiring resources such as webinars and workshops.

5. Employment readiness obtainment and retainment strategies:

Participants will be guided through a 12-week training in which they will earn a data analyst certificate upon completion of all assignments, exams, projects. During this training they will learn languages such as SQL, and Python, and will learn in demand tools such as PowerBI, Excel, and PowerPoint. Additionally, participants will learn skills such as working with data, data retrieval, data visualization, programming fundamentals, machine learning, and communicating insights. A Data Analyst job is projected to be the highest growing job for the next 3 years, ensuring long term opportunity for participants (*See Supportive Information Section A: In demand Roles*). Along with providing training for a long term high-growth job, we will be providing training for the top 6 skill requested on job descriptions from employers for this role (*See Supportive Information Section B: Skills Required by Employers*). Additionally, during this training participants will be required to update their resume and receive feedback on their resume, so they are ready to apply to jobs.

6. Follow-up strategies for training completion rates, job retention, and growth towards career pathways.

The Data Analytics Instructor will monitor students' progress on a weekly basis to ensure they are achieving their learning objectives. If issues arise, the instructor will meet with the student one-on-one to discuss any challenges or issues and coach the student through the lessons and assignments. Additionally, if students need an extension due to personal matters, we will give them a month extension to complete their assignments and classes. During the previous workforce development program, we had two participants who had a death in the family and requested an extension in the program that allowed them to complete the certificate. We plan to enable job retention and career growth by not only teaching the most in demand skills by providing participants with a one year membership to Women in Data in which they will have access to continued learning opportunities, webinars, coaching, mentorship, life coaching, job board access, hiring resources, and community support for long term job growth and retention.

7. Strategies for employer engagement, employment referrals, and job placement services.

Women in Data has already started to seek employers who are interested in hiring the participants. These employers include companies such as **PepsiCo, VSP, Adidas, Vista Print, P3, LTI, Alation, Deloitte, Microsoft**, and more. We are currently finalizing commitments from each of these partners to hire or provided internships for 5-10 participants from each organization. Our goal is to secure at least 50% of the participants a guaranteed internship or job with one of these partners. If additional outreach is needed to secure job placement, Women in Data will work with its network of employers to find employment opportunities for the participants.

c. Past Performance and Planned Outcomes

1. Experience implementing workforce development employment and training services program over the past 2 years.

Women in Data has successfully implemented multiple workforce development programs with local government and virtually through its global network. Most recently we completed a workforce development program for the City of Rancho Cordova from 2021-2022. Through this program, 85% of participants received a certificate, 20% were hired after 3-months, and 98% of participants said they would recommend the program to a friend.

Women in Data has also administered 6 residency programs with 38 participants and 17 individuals hired after completing the program from 2020 -2022 "44% hire rate" and facilitated a mentorship program with over 80 participants and 4 people placed into jobs in 2021. Additionally, Women in Data provides multiple education and career advancement opportunities to its global community year-round through learning pathways, and its career services. Therefore, we are confident that based on our past learnings, experience, and hiring network we will be able to achieve the City's goal of 35% hired.

2. Describe your strategy for monitoring and measuring performance and outcomes.

We will use digital metrics from the program training and surveys to measure and monitor five key metrics:

- Percent of participants starting the program (training platform)
- Percent of participants completing the training (training platform)
- Percent obtaining a certificate (training platform)
- Percent employed undefined and/or training related (survey)

We will remind participates to take the surveys via email, phone calls and text messages in ensure accurate and full data collection. The main KPI we will be measuring in the program is how many people we get placed into a full-time job making greater than $50,000. When participants sign up for the program they will be asked to sign a waiver that will allow us to monitor their employment status.

d. Partnerships:

To provide the skills assessment and training resources for the analytics certification, Women in Data will use the DataCamp platform for assessments. Most importantly, Women in Data will work with its current hiring partners who we have existing relationships such as **PepsiCo, VSP, Adidas, Vista Print, P3, LTI, Alation, Deloitte, Microsoft**, to secure employment or internship opportunities for the participants.

5. Project Expected Timeline

Please see the table below which denotes the key milestones and expected project timeline.

Project Expected Timeline			
Milestone	**Start Date**	**End Date**	**Prerequisite Milestone/Contingency**

Marketing Materials & Landing Page Setup	December 1st, 2023	January 1st, 2023	Contract Signed
Application Open & Program Promotion	January 1st, 2023	January 31st 2023	Marketing Materials & Landing Page Setup
Confirm Participants	February 1st, 2023	February 13th, 2023	Applications for the Program
Program Kick-off Gathering (Handout Computers, Meet Teacher)	February 16th, 2023	February 16th, 2023	Confirmed Participants in the Program
Training - Data Analyst Certificate	February 20th, 2023	May 19th, 2023	Program Onboarding (Computer setup and license assignment)
Certificates Awarded - Celebration Event	May 25th, 2023	May 25th, 2023	Participants Completed Training for Certificate
Opportunities Secured for Internships and Hiring of Participants	December 1st, 2022	December 1st, 2023	Participants Completed Training for Certificate
Hiring Support and Continual Educational Access	May 25th, 2023	December 1st, 2023	Participants Completed Training for Certificate

Figure 1 – Project Expected Timeline

6. Source and Use of Funds

Funding source for this program will be the amount requested in the RFP for a total of $614,400. For a detailed breakdown of the use of funds, see *Figure #2 – Use of Funds below.*

Use of Funds					
Service/Role	**Number of Weeks**	**Hours Per Week**	**Total Hours**	**Hourly Rate**	**Total Cost**
Project Lead	52	10	500.00	$250.00	$125,000
Program Coordinator	52	15	780.00	$175.00	$136,500
Comms/Marketing Coordinator	52	10	520.00	$195.00	$101,400
Company Relationship Manager	52	15	780.00	$175.00	$136,500
Instructor(s)	24	20	480.00	$125.00	$60,000
Technology/Licenses	N/A	N/A	N/A	N/A	$25,000
Digital Ads for Recruiting	N/A	N/A	N/A	N/A	$5,000
Computers	N/A	N/A	N/A	N/A	$25,000
Total Cost					**$614,400**
Number of Participants					50
Cost Per Participant					**$12,288**

Figure 2 – Use of Funds

7. Conflict of Interest Statement

At this time, Women in Data does not see any conflict of interest with its current sponsors/partners and the work outlined in this request.

8. Exceptions

Women in Data does not see any exceptions needed to the NOFA requirements at this time.

9. Supportive Information

a. In-Demand Roles

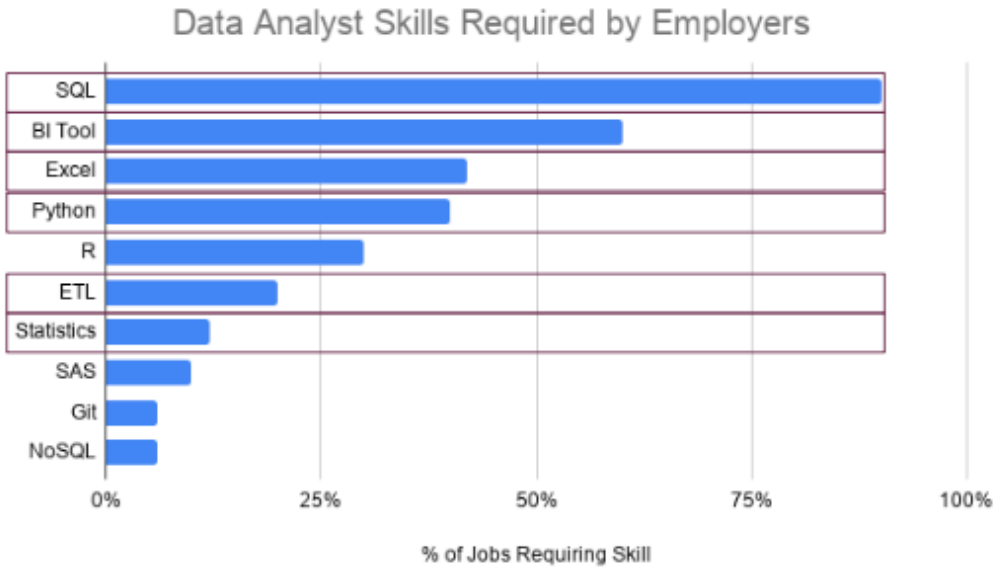
FIGURE 22 | Top 20 job roles in increasing and decreasing demand across industries

	Increasing demand		Decreasing demand
1	Data Analysts and Scientists	1	Data Entry Clerks
2	AI and Machine Learning Specialists	2	Administrative and Executive Secretaries
3	Big Data Specialists	3	Accounting, Bookkeeping and Payroll Clerks
4	Digital Marketing and Strategy Specialists	4	Accountants and Auditors
5	Process Automation Specialists	5	Assembly and Factory Workers
6	Business Development Professionals	6	Business Services and Administration Managers
7	Digital Transformation Specialists	7	Client Information and Customer Service Workers
8	Information Security Analysts	8	General and Operations Managers
9	Software and Applications Developers	9	Mechanics and Machinery Repairers
10	Internet of Things Specialists	10	Material-Recording and Stock-Keeping Clerks
11	Project Managers	11	Financial Analysts
12	Business Services and Administration Managers	12	Postal Service Clerks
13	Database and Network Professionals	13	Sales Rep., Wholesale and Manuf., Tech. and Sci.Products
14	Robotics Engineers	14	Relationship Managers
15	Strategic Advisors	15	Bank Tellers and Related Clerks
16	Management and Organization Analysts	16	Door-To-Door Sales, News and Street Vendors
17	FinTech Engineers	17	Electronics and Telecoms Installers and Repairers
18	Mechanics and Machinery Repairers	18	Human Resources Specialists
19	Organizational Development Specialists	19	Training and Development Specialists
20	Risk Management Specialists	20	Construction Laborers

Source

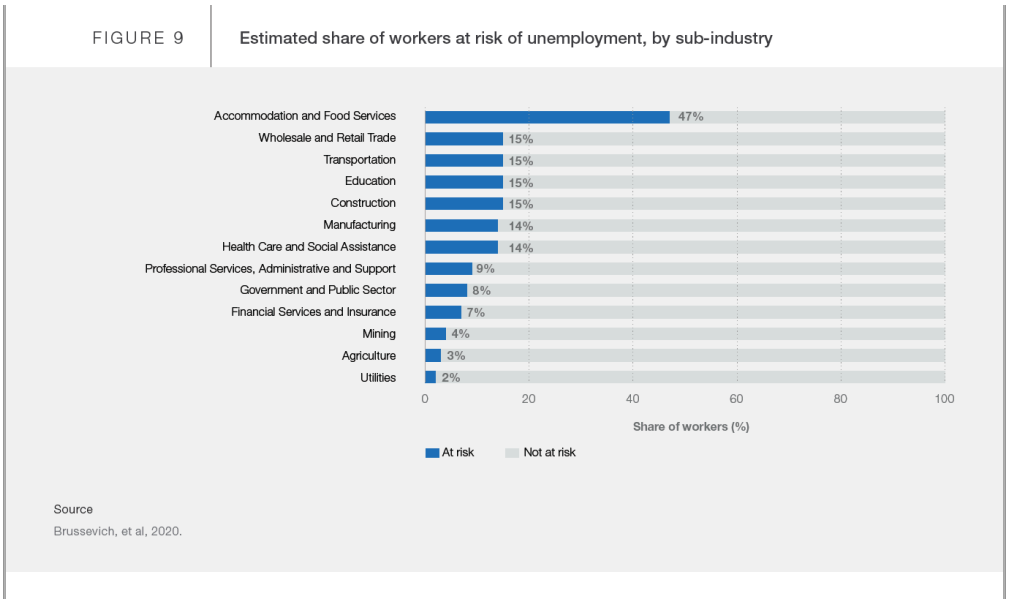
Future of Jobs Survey 2020, World Economic Forum.

b. Skills Required by Employers



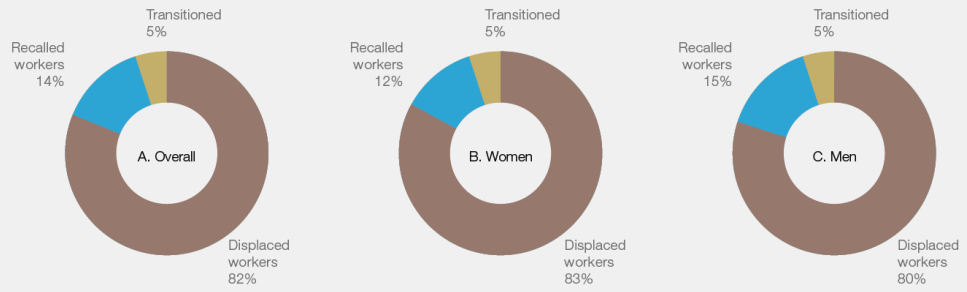
- Beamjobs.org, 2022

c. Workers at Risk of Unemployment



d. Workers Who Lost Their Jobs by Gender

FIGURE 11 | Outcomes for workers who lost their jobs in the United States, February–May 2020, by gender



Source
ADP Research Institute, produced for the World Economic Forum's New Metrics CoLab.

e. References

Reference #1
Project Description: Please see project 3-5 listed in *Section 3: Qualifications & Experience*. Aubree was our main point of contact for the project. The total funding received was $84,400.
Contact Information:
Aubree J. Taylor
Office of Innovation and Economic Development
City of Sacramento
915 I Street, New City Hall
Sacramento, CA 95814
916-808-7191
ajtaylor@cityofsacramento.org

Reference #2
Project Description: Please see project 2 listed in *Section 3: Qualifications & Experience*. Zach was our main point of contact for the project. The total funding received was $15,000.
Contact Information:
Zach Denning
CEO, Hank
3140 Peacekeeper Way
McClellan Park, CA 95652
916-850-0076
zdenning@enerdapt.com

Reference #3
Project Description: Please see project 1 listed in Section 3: Qualifications & Experience. Laura our main point of contact for the Workforce Recovery Program. Total Funding Received: $249,000.
Contact Information:
Laura Fickle
916-505-5744
laurafickle@gmail.com

f. Tax Exempt Status

INTERNAL REVENUE SERVICE
P. O. BOX 2508
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date: OCT 03 2016

WOMEN IN DATA SCIENCE AND ANALYTICS INC
3400 H ST APT 9
SACRAMENTO, CA 95816-4569

Employer Identification Number:
81-3395555
DLN:
26053673001686
Contact Person:
CUSTOMER SERVICE ID# 31954
Contact Telephone Number:
(877) 829-5500
Accounting Period Ending:
December 31
Public Charity Status:
170(b)(1)(A)(vi)
Form 990/990-EZ/990-N Required:
Yes
Effective Date of Exemption:
December 30, 2015
Contribution Deductibility:
Yes
Addendum Applies:
No

Dear Applicant:

We're pleased to tell you we determined you're exempt from federal income tax under Internal Revenue Code (IRC) Section 501(c)(3). Donors can deduct contributions they make to you under IRC Section 170. You're also qualified to receive tax deductible bequests, devises, transfers or gifts under Section 2055, 2106, or 2522. This letter could help resolve questions on your exempt status. Please keep it for your records.

Organizations exempt under IRC Section 501(c)(3) are further classified as either public charities or private foundations. We determined you're a public charity under the IRC Section listed at the top of this letter.

If we indicated at the top of this letter that you're required to file Form 990/990-EZ/990-N, our records show you're required to file an annual information return (Form 990 or Form 990-EZ) or electronic notice (Form 990-N, the e-Postcard). If you don't file a required return or notice for three consecutive years, your exempt status will be automatically revoked.

If we indicated at the top of this letter that an addendum applies, the enclosed addendum is an integral part of this letter.

For important information about your responsibilities as a tax-exempt organization, go to www.irs.gov/charities. Enter "4221-PC" in the search bar to view Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, which describes your recordkeeping, reporting, and disclosure requirements.

Letter 5436

WOMEN
IN DATA

WORKFORCE RECOVERY PROGRAM

Proposals Due by October 21st, 2022

INTRODUCTION

Key elements that lead to economic prosperity include high performing businesses, serviced by a highly skilled workforce, prepared through targeted training programs, and dynamic education systems. The purpose of the Workforce Recovery Program is to increase access to career pathways programs and help Rancho Cordova residents with barriers to employment enter the workforce in skilled occupations.

The funds may be directed towards providing support for individuals who have been impacted by COVID-19. City of Rancho Cordova is accepting proposals from qualified applicants that provide workforce development programs to the residents of Rancho Cordova in accordance with the included specifications, terms, and conditions shown in this Notice of Funding Availability (NOFA). The city has $1 million available that may be committed to one or more qualified projects.

This NOFA is being released to identify experienced and eligible workforce development applicants wishing to provide services to the residents of Rancho Cordova. Prospective applicants are advised to read this information carefully prior to submitting a proposal. Applicants must submit one signed electronic version by email to the Economic Development Department at econdev@CityofRanchoCordova.org, by 5:00 pm on October 21st, 2022. Proposals shall mark the subject line of the email: Workforce Recovery Program Proposal.

Proposals shall not be accepted by fax or as a physical copy.

QUESTIONS

Questions regarding this NOFA are to be directed by e-mail to The Economic Development Department, at econdev@CityofRanchoCordova.org. Such contact shall be for clarification purposes only. The city must receive all questions no later than October 10th, 2022 Questions and answers will be posted to the city's website by the end of the day on October 12th, 2022. Material changes, if any, to the scope of services or proposal procedures will only be transmitted by written addendum and posted to the city website: CityofRanchoCordova.org

Applicants may reply only upon written information and/or instructions from the city. The city shall not be responsible for any oral information from third parties.

To maintain a fair and equal process for all Applicants, upon receipt of this NOFA, Applicants (or their designated agents) shall not directly or indirectly contact any Council member or other city staff, other than the person identified in the NOFA, for meetings, conferences or technical discussions that are related to the NOFA. Unauthorized contact of any Council member or other city staff may be cause for immediate disqualification from the process.

SCOPE OF WORK

Background

The city was allocated $15.58 million in American Rescue Plan Act (ARPA) funds to assist states, tribal governments, and local governments with the recovery from the economic impacts caused by COVID-19. Of the allocated funds the city has a total of $38 million available to provide enhanced programs and projects for the community as it emerges from the pandemic. Funding is being made available to directly support a continuation of the city's workforce development program. The

program will provide employment training and job placement services for Rancho Cordova residents that been unemployed, underemployed, or looking to change career paths.

The role of the city will be to contract with a Service Provider(s) who will develop, market, and administer the Programs on behalf of the city. The Service Provider(s) will provide job placement services for the students for at least six(6) months from the end of the course or obtainment of the certificate, whichever is later. The city anticipates it will pay the Service Provider(s) for their services, pay for student tuition and supplies, pay a reasonable stipend and/or a livable wage to students who start and complete the Programs, and pay placement bonuses to students who are hired within 90 days of completion of the Programs as a result of certification and maintain employment for at least 12 months. Notwithstanding these anticipated payments by the city, the Service Provider(s) should indicate in its proposal the efficacy of such approaches and propose different approaches based on the Service Provider(s) experience and expertise.

Establishing a Workforce Recovery Program will assist the city of Rancho Cordova by:

- Providing immediate employment services and resources for adults in Rancho Cordova who are unemployed, underemployed, or looking to change career paths; those who lack transportation, childcare, or educational attainment, those who need job coaching or case management services, and other supportive services to aid jobseekers in securing employment;
- Increasing the number of trained and skilled workers that were left unemployed, underemployed, or seeking a change in careers due to the COVID-19 crisis;
- Creating competitive candidates for local employers to access and employ;
- Upskilling and reskilling training opportunities in high-demand industries and occupations;
- Improving job placement rates by securing employment opportunities for dislocated workers;
- Increasing the number of employed residents generating income that produces economic sustainability for themselves, their families, and their communities;
- Providing direct job placement or internship opportunities for adult job seekers.

Under this NOFA, financial assistance may be provided for a variety of workforce development programs to meet the needs of Rancho Cordova residents. The total value of the financial commitment is $1 million dollars, which is expected to fund multiple projects.

Requirements

To be eligible, applicant shall submit a proposal outlining how the applicant will utilize funding to provide workforce development services to community members, households, and/or those affected by the COVID-19 pandemic.

The city anticipates that there will be a variety of responses bringing forth a range of program ideas. These ideas will be evaluated on how they address impacts to households and individuals in Rancho Cordova.

The services may be provided as part of the range of services provided by the applicant. The scope of work below outlines a potential framework, but applicants may have different program concepts for the city to consider.

Applicants may request funds under more than one category. Applicants requesting funds under more than one category are required to submit a separate proposal for each category. Eligible expenses cannot be duplicated across proposals.

Applications can address one, some, or all the following:

- Provides comprehensive, holistic, and metrics-based employment services that targets jobseekers.
- Program focuses on adult jobseekers that were directly unemployed or underemployed, displaced, or may have been laid-off because of the COVID-19 crisis.
- Has staff capacity to administer proposed program, ability to complete all workforce services.
- Program connects to the larger workforce ecosystem in Rancho Cordova and the Region.
- Linkage to supportive services; addresses barriers to employment.
- Implements a data-driven workforce program or project that executes strategic employment services leading to job placements, paid internships, or apprenticeship opportunities.
- Workforce training and job placement in high-demand occupations and industries that meets the needs of employers in Rancho Cordova and the Region.
- Employer engagement and job placement capacity.

- Pre-apprenticeship training program and job placement services.
- Provides a broad range of practical job and life-skills to enhance participants' essential employment skills and provide hands-on occupational skills that include the attainment of industry recognized certificates that lead to entry into a Registered Apprenticeship (RA), community college career training programs, or high-quality employment leading to family-sustaining wages.
- Fund pre-apprenticeship Construction Training Program and Placement Services projects that fill critical workforce skills gaps by creating opportunities for jobseekers to gain exposure to a broad range of occupations in the building trades, receive hands-on training, and enter industry recognized credentials leading to entry into apprenticeship, post-secondary Career Technical Education (CTE) programs, or direct employment in Construction or Energy efficiency sectors.
- Applicant must have knowledge and experience around national and state best practices and state of the art technology-based approaches to education and training to offer resources to participants.
- Applicant should leverage existing best practices and help develop tools to serve the residents.

All proposed projects must adhere to the following minimum requirements:

To be eligible:

- Documented success providing services that are the same or similar to those requested in this NOFA.
- Demonstrated connection with employers in the building trades, the technology sector, health care and life sciences, or in other high demand industries and occupations.
- Demonstrated experience in collaboration and coordinating program services with other community organizations.
- A successful applicant will provide linkages between workforce development, education, social services, other serving organizations, and the business community and will be able to provide at least six(6) months of job placement assistance after completion of the training and/or obtainment of the certification, whichever comes last
- Must be an individual or organization that will provide employment and training services to dislocated and unemployed residents within the City of Rancho Cordova boundaries, that were recently laid-off, underemployed, looking to change career paths, or unemployed. There will be a particular focus on organizations that can describe extensive experience in employment training and/or job placement activities, outlining in detail past programing completion and/or success rates.
- If an applicant is a non-profit corporation, the organization must provide evidence of tax-exempt status pursuant to Section 501(c)(3) of the Internal Revenue Code.
- If an applicant is an organization, the organization must have been in existence for at least one full year prior to March 1, 2020 and be able to provide budget and program information beginning March 1, 2019, if requested.
- Applicants cannot discriminate in violation of any state or federal law, including laws that prohibit discrimination based on race, color, sex, creed, religion, national origin, age, marital status, ancestry, medical condition, disability (including HIV and AIDS), sexual orientation, or gender identity.
- Applicants must meet the city's requirements for general liability insurance ($1 million per occurrence). Proof of insurance must be provided prior to executing a grant agreement.
- Other Administrative Requirements:
  - All applicants must be able to report and track the impacts individuals and households have experienced due to the COVID-19 public health crisis. Monthly reports will be required showing number served, number and type of services administered, geographic and demographic information for those served.
  - In addition, a final report will be required containing a summary of the process, findings, outcomes, lessons learned and best practices, how the assistance provided aided the individuals and households and recommendations for future assistance efforts.
  - All applications must track and measure predetermined metrics for the Program.
- The primary metrics are used to set goals and measure success compared to national workforce programs.

The Primary metrics to Benchmark the Results Compared to the US National Workforce Program

Milestone/Outcome	Employment and Training Administration Workforce Development Program	Rancho Cordova's Target Goal
Percent of participants who started the program	92%	100%
Participants completed training	47%	75%
Participants completed the training and obtained a certificate or credential	37%	50%
Participants have entered employment "undefined" (6, 12 and 18 months after program completion)	24%	35%
Participants have entered into "training related" employment (6, 12 and 18 months after program completion)	17%	25%

- The secondary metrics that will be required for this workforce program include but are not limited to: number of apprenticeships or internships received (where applicable), total jobs retained, average salary increase, percentage of participants employed, percentage of participants employed in Rancho Cordova. All job placements/starting wages should be measured against the MIT living wage calculator for the Sacramento, Roseville, Arden Metropolitan Statistical Area. https://livingwage.mit.edu/metros/40900.
  - Since the range of needs is broad, one or more proposals may be awarded under this NOFA.

PROPOSAL GUIDELINES AND FORMAT

The following guidelines are provided for standardizing the preparation and submission of proposals. The intent is to assist applicants in the preparation of their submissions and to assist the city by simplifying the review process providing standards for comparison of submissions.

Statements submitted in response to this NOFA shall include a complete response to the requirements in this section in the order presented. Statements should be a straightforward delineation of the applicant's capability to satisfy the intent and requirements of this NOFA and should not contain redundancies and conflicting statements.

Proposals shall be a single pdf document, not greater than 30 MB in file size, no more than 25 pages in length, with easy-to-read font size and style. Pages shall be numbered, and section headings should separate and identify the response items described below.

Applicants must submit one signed electronic version by email to the Economic Development Department at econdev@cityofranchocordova.org, by 5:00 pm on October 21st, 2022.

Application submittals shall mark the subject line of the email: Workforce Recovery Program Proposal.

Proposals shall contain the following information in the order listed:

1. Introductory Letter

The introductory letter should be addressed to:
City of Rancho Cordova
Economic Development
2729 Prospect Park Drive Rancho Cordova, CA 95670

The letter should state the prime organization and include the organization's name, mailing address, telephone number, and contact name. The applicant shall provide a brief description that includes:

- A summary of the applicant's understanding of the city's goals and objectives and how the applicant's proposal would achieve those objectives. This summary should reflect the applicants' project understanding and summarize critical issues, challenges, milestone tasks, and appropriate resourcing.
- Clearly describe the applicant's experience administering workforce development employment and training programs. Discuss past performance results for workforce development programs. Provide examples of applicant's ability to deliver workforce development programs.
- If the applicant is an organization, the applicant shall also identify the year the organization was established, the total number of employees, and the total number of employees that will be working on the proposed program. The applicant must provide a financial reference or annual report, and a gross/net revenue report for the last two fiscal years.
- Detailed budget narrative and itemized funding request.
- A minimum of three references from entities for which the applicant completed a project of similar size and complexity. At least one reference from a local government entity is preferred. The applicant must provide the following information for each reference: entity name; primary contact's address, phone number, and email address; reference's industry; description of the services provided, dates of service, contract term, and total dollar value of the contract or grant.
- If the applicant is a non-profit corporation, evidence of tax-exempt status pursuant to Section 501(c)(3) of the Internal Revenue Code.
- If applicant is a business or non-profit entity, a copy of current business license from the City of Rancho Cordova.
- Letter must be signed by an authorized officer of the organization. The primary organization is responsible for answering any questions relevant to the proposal and has lead responsibility relative to the project development and operation as relates to any city funding commitment.

2. Table of Contents

The applicant shall insert a table of contents denoting Sections 3 through 9 of the proposal as indicated below and any appendices included.

3. Qualifications and Experience

Provide a narrative statement describing all entities responsible for the development and management of the project (including service providers if applicable), including the following:

a. A description of each firm relevant to the project's development, and management. Include information on each firm's role in the project, and experience working together on previous projects. Also, note which firm will be the project lead.

b. Identify key staff, including brief resumes that include length of time providing such services and contact information (including location, phone and e-mail address). The proposal should indicate each team member's responsibility for project tasks. Identify the lead person who will be the primary liaison.

c. For each nonprofit organization involved in the project, provide nonprofit name, incorporation date and place, affiliated organizations, IRS tax status, annual budget, and major sources of funding.

d. For each entity, the proposal shall include a list of jurisdictions and projects similar to the one proposed in which the entity has provided such services in the past 5 years. Projects included shall include the client's name and location. At least five examples of recent, relevant projects shall be provided. For firms, the list should include the name of the jurisdiction, contact person, phone number, and the approximate amount of funding received. Respondent must have no record of unsatisfactory performance with the city or with any other jurisdictions the respondent has contracted with or received funding from. References may be contacted as a part of the selection process and will be asked to comment on work quality and performance.

4. Project Description

Provide the following information:

a. Name of project

b. Project Design

- Describe in detail your strategies for engaging, recruiting, enrolling, and serving job seekers. Describe innovative ways in which you will outreach to individuals.

- Description of the population served. Include demographic, social, academic, and other elements to demonstrate your working knowledge of the populations and communities you propose to serve.
- Describe the intake process, including collection of basic information from potential clients, informing potential clients of available services in your organization or elsewhere, and determination of client suitability for program services.
- Describe the programs model of service delivery – cohorts, open entry-open exit, one-on-one mentoring. Trainees outplaced with employers, etc. Describe the process for developing and managing individualized employment plans with job seekers.
- Describe strategies that will be utilized to ensure individuals obtain the skills needed to obtain and retain employment.
- Describe your follow-up strategies and how they will enhance training completion rates, job retention, and growth towards career pathways.
- Describe strategies utilized for employer engagement, employment referrals, and job placement services. Describe the specific roles these employers will play in your program.

c. Past Performance and Planned Outcomes

- Describe your experience implementing workforce development employment and training services program over the past 2 years. Identify performance measures, results, along with other key benchmarks and outcomes such as: total served, total placements, percent of positive exits.
- Describe your strategy for monitoring and measuring performance and outcomes. Specifically,
  - Percentage of participants who started the program, percentage of participants completed training, percentage of participants completed the training and obtained a certificate or credential, percentage of participants have entered employment “undefined” (6, 12 and 18 months after program completion), percentage of participants who have entered into “training related” employment (6, 12 and 18 months after program completion)
  - Number of apprenticeships or internships received (where applicable), total jobs retained, average salary increase, percentage of participants employed, percentage of participants employed in Rancho Cordova.

d. Partnerships:

- Describe the collaborative partnerships you will use to implement the program. Identify demonstrated connections and existing functional partnerships that will part of this program, such as, businesses in Rancho Cordova and the six (6)county region, alternative education, adult education, and postsecondary institutions including community college, advanced skills training entities, apprenticeship training, four-year colleges and universities, labor organizations, community-based organizations and/or other services.

e. Project Expected Timeline:

- Applicant shall prepare a table that explains key project timeline milestones achieved to date and/or projected in the future, see template below.

Milestone	Date	Key Prerequisite Milestone/Contingency

5. Sources and Uses of Funds

Provide detailed Sources and Uses tables which clearly state:

a. Each funding source and proposed or committed amount.

b. Evidence of funding commitment, for any funds committed.

c. A table that identifies sources and uses by funding source.

6. Conflict of Interest Statement

Submit a statement regarding any activities or relationships of the proposer that might create a conflict of interest for the proposer or the city, and, if such activities or relationships exist, a description of the facts, legal implications, and possible effects sufficient to permit the city to appreciate the significance of the conflict and to grant any conflict waiver, if appropriate and necessary.

7. Exceptions

Note any exceptions to the NOFA requirements in their entirety. The city may reject any requests for modifications to the NOFA requirements that were not noted in response to this NOFA.

8. Supportive Information

This section may include graphs, charts, photos, resumes, references, etc. in support of the applicants' qualifications and/or project plan.

NOFA SCHEDULE

The city anticipates the following schedule for reviewing submitted proposals:

NOFA available	September 26th, 2022
Deadline for questions	October 10th, 2022
Questions/answers posted online	October 12th, 2022
Deadline for proposal submissions	**October 21st, 2022**
Staff review of proposals	October 24th – 28th, 2022
City Council meeting for funding recommendations	November 7th, 2022

The city may revise the schedule as needed. Staff may select one or more applicants to recommend that the City Council consider a financial commitment for one or more specific proposals. The timeframe for the recommendation to the City Council will be determined in coordination with the firms(s) selected and staff.

EVALUATION AND SELECTION CRITERIA

Project Selection Process

For projects to be considered for assistance, a proposal consistent with the terms of this NOFA must be submitted. City staff shall review the responses to this NOFA for completeness, evaluate them against the stated criteria and review for recommended action. Staff will select one or more projects to move forward with a recommendation to the City Council regarding a funding commitment.

Proposal Evaluation

Proposals will be evaluated using the categories listed below. The following represent the principal selection criteria, which will be equally weighted for consideration during the evaluation process.

- Specialized Experience and Technical Competence – This will include a review of the applicant's qualifications, experience, and documented capacity in program management and as a fiduciary.
- Performance History – This will include a review of performance history, including, without limitation, competency, responsiveness, cost control, work quality, and the ability to meet schedules and deadlines.
- Quality of Program Design – This will include a review of program design, innovative strategies that will be utilized, staffing plan, and planned performance outcomes.

Additional consideration will be given for Service Providers who have established working relationships or partnerships with employers located in Rancho Cordova or within the surrounding six(6) county region, in the following professional areas: technical, advanced manufacturing, medical and life sciences, and trades. Proposals which are able to leverage other funding sources, will also be taken into consideration.

GENERAL POLICIES

Late Proposals

Proposals arriving after the specified date and time will not be considered, nor will late proposals be opened. Each respondent assumes responsibility for timely submission of its proposal.

Withdrawal or Modifications of Proposals

Any proposal may be withdrawn or modified by a written request signed by the respondents and received by the Economic Development Manager prior to the final time and date for the receipt of proposals.

Proposal Acceptance and Rejection

The city reserves the right to accept any proposal, to reject any and all proposals, and to call for new proposals, or dispense with the proposal process in accordance with the Rancho Cordova Municipal Code.

To maintain a fair and equal process for all Applicants, upon receipt of this NOFA, Applicants (or their designated agents) shall not directly or indirectly contact any Council member or other city staff, other than the person identified in the NOFA, for meetings, conferences or technical discussions that are related to the NOFA. Unauthorized contact of any Council member or other city staff may be cause for immediate disqualification from the process.

Proposal Evaluation and Award

Proposals shall be evaluated by staff. One or more applicants will be selected to move forward with a recommendation to the City Council based on the strength of their proposal.

The Council shall approve any funding commitment after considering the staff recommendation.

All applicants that were not selected by the city shall be notified in writing. Nothing herein shall obligate the city to award a contract or funding to any responding developer.

Waiver of Irregularities

The city retains the right, in its sole discretion, to waive any irregularities in proposals that do not comply with the strict requirements of this NOFA, and the city reserves the right to award a contract to an applicant submitting any such non-compliant proposal, all in the city's sole discretion.

Use of Other Governmental Contracts

The city reserves the right to reject any part or all of any proposals received and utilize other available governmental contracts.

Qualification/Inspection

Proposals shall only be considered from applicants normally engaged in providing the types of products and services specified herein. By responding to this NOFA, the applicant consents to the city's right to inspect the firm's facilities, products, personnel, and organization at any time, or to take any other action necessary to determine applicant's ability to perform. The city reserves the right to reject proposals where evidence or evaluation is determined to indicate inability to perform. The city reserves the right to interview any or all responding applicants and/or to award a funding commitment without conducting interviews.

Federal Requirements

Should any portion of this procurement require the use of Federal funds, all Federal requirements shall apply, and all applicants must consent to each certification and assurance, which will be incorporated into the contract documents.

Performance

It is the intention of the city to acquire products or services as specified herein from an applicant that will give prompt and convenient service.

Term of Agreement

The term of the contract or financial commitment, if awarded, will be for a specific period of time. The city anticipates the financial commitment to be for a term of not more than 12 months, with any extensions at the sole option of the city; the city reserves the right to set the term for a period deemed to be in the best interest of the city.

Service and Support

Applicants shall explain how all on-going services and support will be handled by the firm.

Records

The applicant shall maintain complete and accurate records with respect to labor costs, material expenses, and other such information required by city that relates to the performance of services under any contract or loan agreement. The applicant shall maintain adequate records of services provided in sufficient detail to permit an evaluation of services. All such records shall be maintained in accordance with generally accepted accounting principles and shall be clearly identified and readily accessible and in a form acceptable to the city, which the city may specify and change from time to time. The applicant shall provide free access to the representatives of city or its designees, at reasonable times, to such books and records, shall give city the right to examine and audit said books and records, shall permit city to make transcripts therefrom as necessary, and shall allow inspection of all work, data, documents, proceedings, and activities related to this contract or loan agreement. Such records, together with supporting documents, shall be maintained for city's inspection for a period of at least three (3) years after receipt of final payment.

Public Records

Any and all materials submitted to the city shall become exclusive property of the city and will become public records subject to the California Public Records Act (Gov't Code sections 6250 et seq., the "Act"). Any application(s) that contain language purporting to render all or a significant portion of the application "Confidential," "Proprietary," "Trade Secret" or a similar designation will be considered a public record in its entirety, subject to disclosure under the Act. Applicants who believe portions of their application are exempt from disclosure under the Act, must mark that specific portion as such, and state the specific provision of the Act which provides the exemption as well as the factual basis for claiming the exemption. The city retains final discretion on what will be disclosed pursuant to the Act, but may, time permitting, provide notice to applicant to seek protection from disclosure by a court of competent jurisdiction.

Agency Discretion, Non-Liability Waivers, and Hold Harmless

The information in this NOFA is intended to provide general information regarding the city Economic Development programs. This information is not intended or warranted to be a complete statement of all of the information the respondents might be required to ultimately provide.

This NOFA does not commit the city to pay any costs incurred in the preparation of a response. The city reserves the right to accept or reject any proposal in part or in its entirety. The city reserves the right to choose any number of qualified proposals. In addition, the city reserves the right to issue written notice to all participants of any changes in the proposal submission schedule or other schedules, should the city determine, at its sole discretion, that such changes are necessary.

Final Authority

The final approval authority rests solely with the City Council of the City of Rancho Cordova.

WORKFORCE DEVELOPMENT

Training Proposals

RANCHO CORDOVA CALIFORNIA

AGENDA

Staff will present:

- The background context for this discussion
- The 10 proposals received
- Staff and oversight panel recommendations
- Workforce tracking proposal

Receive Council direction:

- Provide considerations for the training proposals
- Workforce tracking proposal

Next Steps:

- Staff will draft agreements for the approved providers, with council considerations
- Staff will return with agreements on consent at a future council meeting

BACKGROUND AND CONTEXT

- A Workforce Recovery Program was discussed as a key initiative to be funded by Measure R and ARPA (American Rescue Plan Act) Funding
- Goal is to help residents reskill or upskill and assist local businesses find local talent
- The Notice of Funding Availability (NOFA) was released on September 23 and closed on October 21
- 10 proposals were received in response to the NOFA
- Budget: $1 million dollars

WORKFORCE RECOVERY PROGRAM

Purpose

The purpose of the Workforce Recovery Program is to provide opportunities for our residents who are either unemployed, underemployed, or want to upskill and receive training to be able to compete for higher wage jobs.

The Program is designed for residents to be able to take a variety of classes or participate in a program that will enable them to receive a certificate or gather a new skill set which will enable them progress within their current career field or pivot into a new career field.

Being the largest employment hub outside of downtown Sacramento, Program partners will work to connect their resident participants with employers for job placement or career advancement.

PROPOSALS RECEIVED

- 10 proposals were received in response to the NOFA

- Subject Areas:
  - Medical
  - Manufacturing
  - Technology Ecosystem
  - Trades
  - Wrap Around Job Placement Assistance

- Budget: $1 million dollars
- Requests: $4 million dollars

STAFF EVLAUATION

Staff and the review panel used the following criteria to evaluate the proposals:

- Employer engagement w/ placement capacity
- Employment Projections
- Program Administration
- Job Placement Services
- Program Stipends/ Placement bonuses
- Linkage to support services addressing barriers to employment

All the proposals received are of high quality from competent, capable training providers, and evaluated competitively.

PROPOSALS RECIEVED

Organization	Initial Funding Request	# of Residents Served
Bay Valley Tech	$271,100	50
Charles A. Jones	$277,529	50
Cyber Proud	$184,660	20
DP Global Solutions	$248,350	22
Folsom Cordova Community Partnership	$379,276	90
General Assembly	$320,000	20
North State Building Industry Assoc.	$271,228	50
Northern Cal Construction Training	$953,260	50
Udacity	$428,125	125
WellSpace Health	$128,000	8
Women In Data	$614,400	50
Total	**$4,075,830**	**522**
Approved Budget : $1,000,000	**$(3,075,830) over budget**	

TECH TRAINING PROPOSALS

Company	Description	BLS Projected Growth
Bay Valley Tech	Training in demand digital skills to prepare for entry level positions as digital designers, digital marketers, project managers, and web developers. 15 paid internships and 6 months of career prep and placement.	23% for Web Developers and Digital Designers
Cyber Proud	Pre-apprenticeship program training in Infrastructure Support or Cyber Security. Employers provide work-based learning experiences which can include job shadowing, internships, and apprenticeship programs. Candidates are trained in a rigorous online setting. Cost includes $500 stipends at 3 months and 6 months post employment.	33% for Information Security Analysts
DP Global Solutions	Salesforce Administrator 12 week certification program. 6 months of hiring support, mentorship, and coaching. Laptops will also be available for students who may require them.	9% for Database Administrators and Architects
General Assembly	Software Engineering Immersive Course, 480 hours of instruction. Program includes a $3,000 living stipend. Career coaching and hiring support.	25% for Software Developers
Udacity	Tech Career Incubator with two cohorts: Business Analytics and Digital Marketing. 4-month training program. Career coaching and hiring support 6 months post program.	36% for Data Scientists and 23% for Digital Designers
Women In Data	The Path Forward, 5-month program for data analytics with mentorship, resume support, portfolio building and job placement. Receive data analytics certification. 8 Employer partnerships for direct employment or internship for a minimum of 25 students. Laptops will also be made available for students who may require them.	36% for Data Scientists

OTHER TRAINING PROPOSALS

Company	Description	BLS Projected Growth
Charles A. Jones Manufacturing Training	Manufacturing Training Program including Forklift Operator, Material handling & Logistics, Electro-Mechanical Assembly, Intro to manufacturing, and Welding Fabrication I. Cost includes training, placement bonuses ($200 -$1,500),and transportation stipends ($100/month)	1% growth for Manufacturing
Folsom Cordova Community Partnership	Individual Case Management, JobEx Program, Training Scholarships, Support Services, Comprehensive assessment, Career planning and coaching, Professional networks, training scholarships, and employment Support Services	Wrap around services for high barrier demographics
Northern California Construction Training	Curriculum for over 22 construction trades including but not limited to tools, equipment, and job site safety certifications. Training length is dependent on student aptitude and interest. Partnership with local employers and apprenticeship programs for students to directly apply their skills. $1,000 placement stipends.	4% growth for Construction Laborers and Helpers
North State Building Industry Association	Case management, Life skills certificate, Community Service experience, Work Ready certificate, Trade related certificates, Training program connections. Training length is dependent on student aptitude and interest. Partnership with local employers and apprenticeship programs for students to directly apply their skills. Varying stipends for clothing, equipment, childcare, and transportation.	4% growth for Construction Laborers and Helpers
WellSpace Health	Medical Assistant Training Program is a six-month paid training program that ushers students from historically vulnerable and racially diverse communities into a healthcare career. All students are employed while completing the training program.	16% growth for Medical Assistants

STAFF RECOMMENDATION

Organization	Initial Funding Request	# of Residents Served	Recommended Funding
Bay Valley Tech	$271,100	15	$187,660
Charles A. Jones	$277,529	25	$186,975
Cyber Proud	$184,660	14	$112,000
DP Global Solutions	$248,350	13	$176,329
Folsom Cordova Community Partnership	$379,276	45	$189,640
General Assembly	$320,000	17	$272,000
North State Building Industry Assoc.	$271,228	25	$134,464
Northern Cal Construction Training	$953,260	-	-
Udacity	$428,125	-	-
WellSpace Health	$128,000	8	$128,000
Women In Data	$614,400	30	$411,620
Total	**$4,075,830**	**192**	**$1,800,000**
		Additional Funding to be Allocated from ARPA	

LONG TERM METRICS TRACKING

- Need for data-driven, outcome-based systems in the overall success of the programming.
- Includes:
  - Standardized long term benchmarking,
  - Standardized measurement, and
  - Reporting of job placement outcomes for all participants.

  Data collection in this manner can only be navigated through a system where the service providers share a vision, vocabulary, strategies, and outcomes informed by strong data sharing.

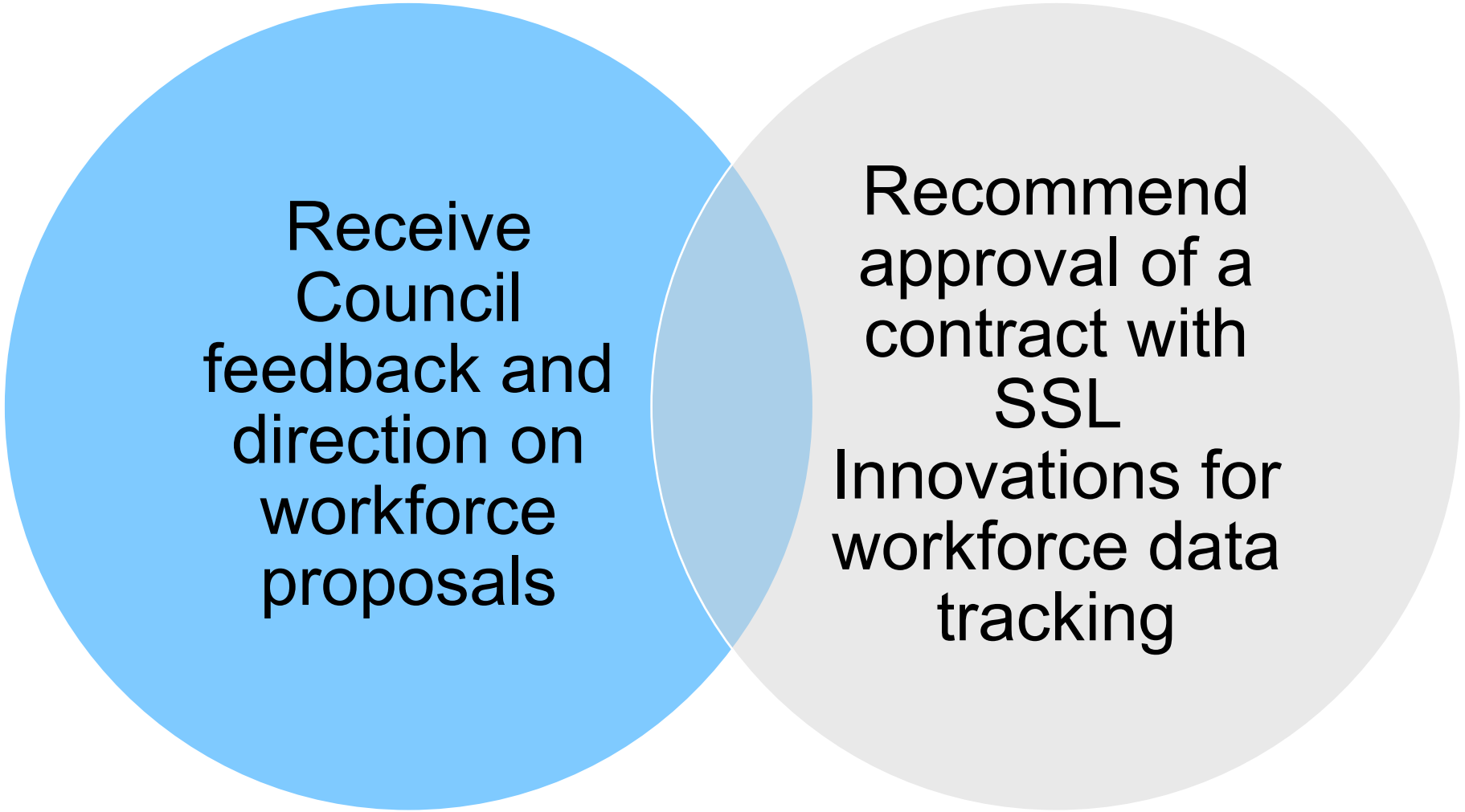
The proposed three-year agreement will allow for the tracking of the workforce participants for 18 months post training.

- The cost of the agreement is $370,000 over the next 3 years.

Milestone/Outcomes

Metric	Employment and Training Administration Workforce Development Program	Rancho Cordova's Target Goals
Percent of participants who started the program	92%	100%
Participants completed training	47%	75%
Participants completed the training and obtained a certificate or credential	37%	50%
Participants have entered employment "undefined" (6, 12, and 18 months after program completion)	24%	35%
Participants have entered into "training related" employment (6, 12, and 18 months after program completion)	17%	25%
Additional Metrics: number of apprenticeships or internships received (where applicable), total jobs retained, average salary increase, percentage of participants employed, percentage of participants employed in Rancho Cordova. All job should be measured against the MIT living wage calculator for the Sacramento, Roseville, Arden Metropolitan Statistical Area (MSA).		

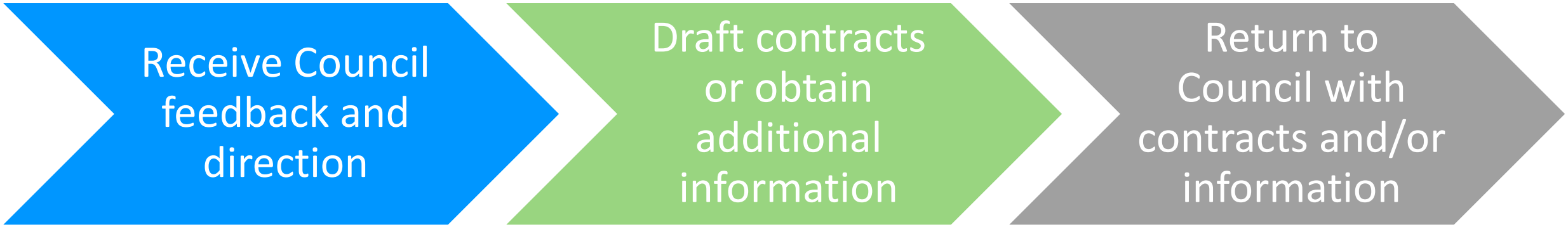
Items for Council Consideration



STAFF RECOMMENDATION

Organization	Initial Funding Request	# of Residents Served	Recommended Funding
Bay Valley Tech	$271,100	15	$187,660
Charles A. Jones	$277,529	25	$186,975
Cyber Proud	$184,660	15	$138,495
DP Global Solutions	$248,350	13	$176,329
Folsom Cordova Community Partnership	$379,276	45	$189,640
General Assembly	$320,000	17	$272,000
North State Building Industry Assoc.	$271,228	25	$135,614
Northern Cal Construction Training	$953,260	-	-
Udacity	$428,125	-	-
WellSpace Health	$128,000	8	$128,000
Women In Data	$614,400	30	$411,620
Total	**$4,075,830**	**192**	**$1,800,000**
SSL Innovations	$370,000	Metric Tracking	$370,000 / over three years

NEXT STEPS


Receive Council feedback and direction
Draft contracts or obtain additional information
Return to Council with contracts and/or information

THANK YOU

MEMORANDUM

ITEM 12.2.

DATE: November 21, 2022

TO: Honorable Mayor and Council Members

FROM: Albert Stricker, Public Works Director
Steve Harriman, Public Works Division Manager

SUBJECT: **RESIDENTIAL WASTE COLLECTION AND STREET SWEEPING CONTRACT OPTIONS FOR THE TERM BEGINNING JANUARY 1, 2025**

RECOMMENDATION

Receive the presentation on the process to develop and execute a new residential waste collection and street sweeping contract for the term beginning on January 1, 2025. No action is requested at this time.

RESULT OF RECOMMENDED ACTION

Staff will return to Council in early 2023 for further discussion. No action is requested at this time.

BACKGROUND

The term of the current contract with Republic Services expires on December 31, 2024. The two options available for execution of a new contract include:

Option 1: Prepare and release a request for proposals document, which would allow multiple waste hauling companies to compete for a new contract beginning January 1, 2025.

Option 2: Negotiate with Republic Services for 90 days and return to the Council with a term sheet for the contract term beginning January 1, 2025. At the conclusion of the 90-day negotiation period, the Council may direct staff to prepare a contract for council approval based upon the negotiated terms, or direct staff to prepare and release a request for proposals document allowing multiple waste hauling companies to compete for the new contract.

FISCAL IMPACT AND FUNDING SOURCE

This item will have no impact on the General Fund.

ATTACHMENT(S)

1. Presentation

Residential Waste Collection and Street Sweeping Contract Options

November 21, 2022

RANCHO CORDOVA CALIFORNIA

Introduction

- Republic Services contract for residential waste collection and street sweeping services expires on December 31, 2024.
- Now is the time to determine how to execute a new contract for January 1, 2025.
- Staff is seeking direction from City Council on how to proceed.

History

- City issued an RFP in early 2004 for residential waste collection and recycling services.
- Proposals were received from Sacramento County and Browning Ferris Industries (Republic). City Council approved selection of BFI on July 19, 2004. Original contract term was February 1, 2005, through December 31, 2012.
- 1st contract extension executed in September 2011, extending the term through December 31, 2017.
- 2nd contract extension approved by the City Council on June 19, 2017, extending the term through December 31, 2024.

Current Agreement Summary

- Weekly garbage and organics collection
- Biweekly recycling collection
- Curbside oil, filters, sharps and battery collection
- Bulky item collection (3X per year at 10 yards each)
- Curbside holiday tree recycling program
- Garbage, recycling and organics collection at City facilities
- Garbage, recycling and porta-potty services at 10 City events
- Billing, customer service and public education
- City Hall organics recycling demonstration project
- Street sweeping (14 sweeps per year on residential streets)
- 3 annual scholarships @ $1,000 each for graduating seniors
- 8% franchise fee on collected revenue
- 40% minimum “diversion” rate
- Extra leaf collection in Nov and Dec (4 bags per week)

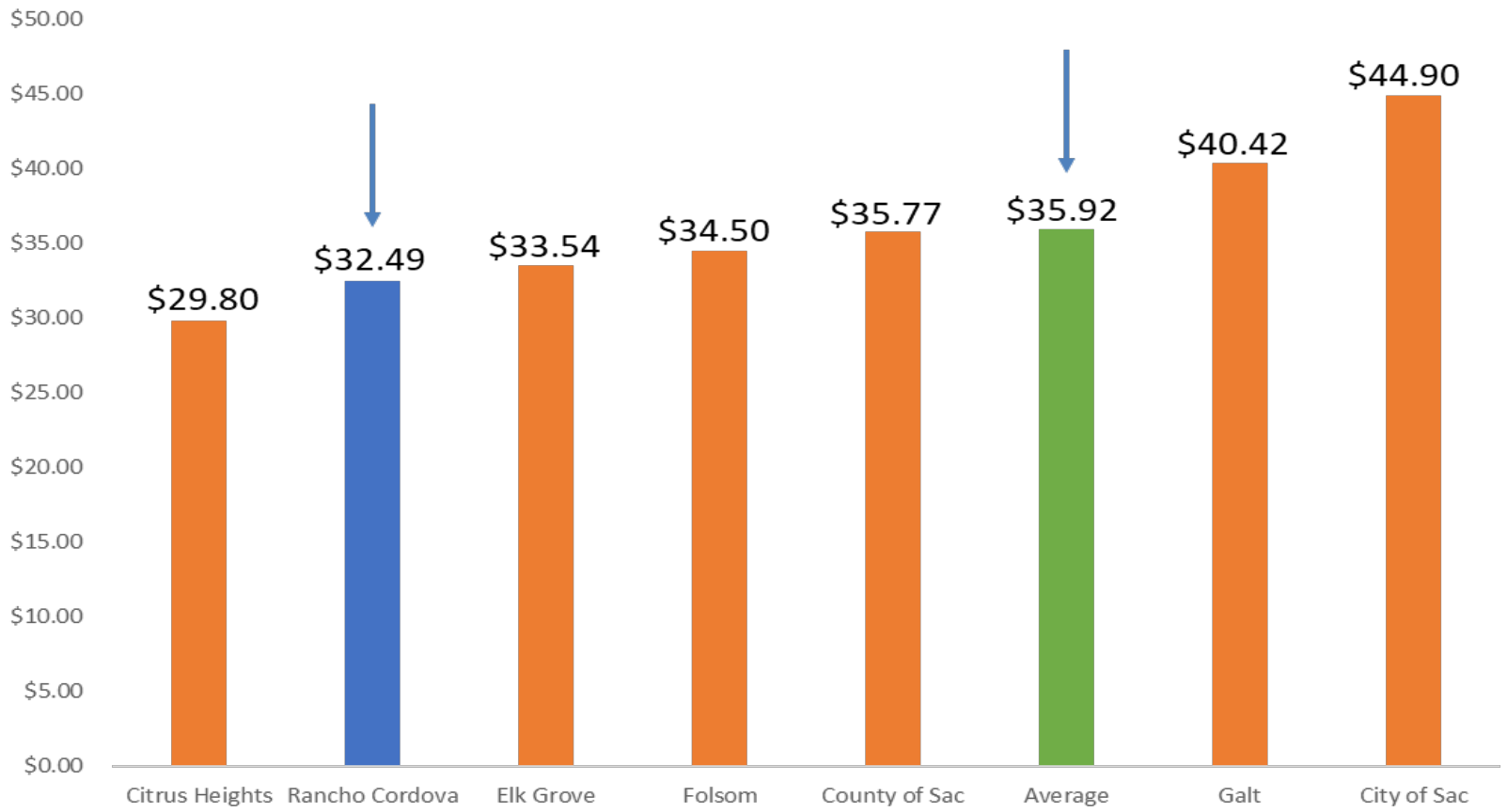
Current Agreement Summary (con't)

- $7.5M in annual billings charged by Republic to residents
- $688,676 franchise fees paid to City in FY2021/22
- $450,000 annual payment to City for road rehab projects
- $4,000 annual payment to City for shopping cart program
- $100,000 to cover staff and consultant costs for negotiations
- Full-time recycling coordinator or $50,000 annual payment to City
- 2,000 cubic yards per year of illegal dumping collection
- New compressed natural gas collection vehicles
- 3 backyard compost workshops per year, including free bins
- 3 cubic yards of free compost at Elder Creek Transfer Station
- Forward Landfill for waste disposal (140 miles round trip)
- Newby Island for recyclables processing (250 miles round trip)
- Organics sent to various facilities outside Sacramento County

2021 Summary

- 18,400 tons of garbage
- 5,100 tons of recyclables
- 7,200 tons of green waste
- 3,300 gallons of used oil
- 730 oil filters
- 4,000 tons of bulky items (27,400 appointments)
- 900 bags of batteries
- 460 computer monitors
- 653 cubic yards of illegal dumping on City streets
- 42.3% diversion rate

2022 Monthly Residential Rates
64-gallon trash cart



2 Options for January 1, 2025 Contract

Option 1: Competitive procurement process, allowing multiple companies to compete for a new contract

Option 2: 90-day negotiation with Republic and return to Council with a term sheet. Council may then direct staff to either:

- *Prepare a new contract for Council approval based on the negotiated terms, or*
- *Proceed with a competitive procurement process, allowing multiple waste hauling companies to compete for a new contract*

Option 1: Competitive Procurement

Pros	Cons
Competition ensures "best services at the best price" for city ratepayers *New contract >$50M for 7-year term*	24-month process with transition to a new waste hauling company
Provides ability to accurately evaluate options: - *Local disposal and processing* - *Enhanced services and programs*	Hauler transition is a difficult process - *Billing transition, cart exchange, new employees unfamiliar with Rancho Cordova, customer confusion* - *Supply chain issues may cause delay in acquiring new collection equipment*
Proposal process allows City Council to select best combination of price, qualifications and experience. Not bound by low bid.	New hauler may be an unknown City partner
Competitive marketplace - *2 to 4 proposals likely*	
Successful proposer would reimburse City for staff and consultant costs	

Option 2: 90-day negotiation with Republic and return to Council with terms

Pros	Cons
Allows Republic and City staff a limited time to negotiate terms for a new contract starting January 1, 2025	Tight schedule if Council directs staff to issue an RFP after 90-day negotiation period
Provides the City Council with flexibility to 1) execute a new contract based on negotiated terms, or 2) issue an RFP and allow other companies to compete	May eliminate opportunity for other hauling companies to participate in a competitive process if Council directs staff to execute contract based on negotiated terms
This process was successful in 2017. City Council approved the current contract after 90-day negotiation period	May be difficult for Republic to accurately project costs for a new contract beginning in 2 years
	City Council commented in 2017 that City should issue an RFP for the contract starting 1/1/25

Schedule for 90-Day Negotiation and Competitive Procurement (Scenario with longest timeline)

- November – February 2023: 90-day negotiation and return to Council with term sheet. Council rejects terms and directs staff to issue RFP.
- March – May 2023: Resident engagement on services and programs. Execute consultant agreement to assist with RFP process. Draft and release RFP.
- July 2023: Proposals from waste haulers due to City.
- July - September 2023: Evaluation committee process (site visits, interviews, reference checks, background research, options analysis, etc.).
- October 2023: Council approves selection of waste hauling company.
- November – December 2023: Complete and execute new contract.
- January 1 – December 31, 2024: Transition.
- January 1, 2025: Begin new contract.

Why is 12-month transition necessary?

If a new waste hauling company is selected at conclusion of RFP process:

- Purchase and delivery of new trucks requires at least 12 months
- New hauler may need to purchase new or expand an existing Corp Yard
- Hire and train new employees (contract manager, recycling manager, customer service reps, drivers, route auditors, mechanics, etc.)
- Establish new billing and customer service systems
- Public education on transition to new hauling company
- Purchase and delivery of new carts (maybe)
- Re-design collection routes (maybe)

Options for a Future Discussion

Option 1:

Competitive procurement process, allowing multiple companies to compete for a new contract

Option 2:

90-day negotiation with Republic and return to Council with a term sheet. Council may then direct staff to either:

- *Prepare a new contract for Council approval based on the negotiated terms, or*
- *Proceed with a competitive procurement process, allowing multiple waste hauling companies to compete for a new contract*

Thank you!